

XV. *Lepidoptera Heterocera from Northern China, Japan, and Corea.* By JOHN HENRY LEECH, B.A., F.L.S., F.Z.S., &c.

[Read June 1st, 1898.]

THE three hundred and fifty-three species of *Lepidoptera Heterocera* dealt with in this paper are distributed among various families as follows:—

SATURNIIDÆ	16	ZYGÆNIDÆ	81
BRAHMÆIDÆ	4	PSYCHIDÆ	7
BOMBYCIDÆ	6	COSSIDÆ	7
EUPTEROTIDÆ	5	HEPIALIDÆ	8
SPHINGIDÆ	59	CALLIDULIDÆ	4
NOTODONTIDÆ	70	DREPANULIDÆ	47
SYNTOMIDÆ	23	THYRIDIDÆ	16

As in my list of species in the families *Epicopiidæ*, *Uraniidæ*, *Epiplemidæ*, and *Geometridæ* (*Ann. and Mag. Nat. Hist.*, 1897 and 1898), the present arrangement is in accordance with that of Sir George Hampson (*The Fauna of British India, Moths*).

Thirty-seven of the species enumerated are, I believe, now described for the first time, and these, together with thirty-three others that I had previously described elsewhere, represent one-fifth of the whole number of species, belonging to the families mentioned, so far known to occur in the area under consideration.

The number of new species in these families is much less than that found among the nine hundred and sixty-six species belonging to the families mentioned in my former paper; among them it was three hundred and fifty-six, or over one-third of the whole.

Family SATURNIIDÆ.

Genus ACTIAS.

Leach; Hampson, *Fauna Brit. Ind., Moths*, i, p. 13 (1892).

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1. *Actias sinensis*.

Tropæa sinensis, Walk., Cat. Lep. Het., vi, p. 1264 (1855).

I have one example, taken in July at Kiukiang. My collectors did not obtain the species in any other part of China that they visited.

Hab. CENTRAL CHINA.

2. *Actias selene*.

Echidna selene, Hübn., Exot. Schmett., i, pl. clxxii, fig. 3.

Actias selene, Macleay, Zool. Misch., ii, p. 70 (1815); Moore, Cat. Lep. Mus. E.I.C., ii, p. 400, pl. xix, figs. 3, 3a (1859); Leech, Proc. Zool. Soc. Lond., 1888, p. 634.

Actias ningpoana, Feld., Wien. ent. Mon., vi, p. 34 (1862).

Saturnia artemis, Brem., Motsch. Etud. Ent., 1852, p. 64; Lep. Ost-Sib., pl. ii, figs. 6, ♂, and 7, ♀.

Tropæa artemis, Kirby, Cat. Lep. Het., i, p. 765 (1892); Staud., Rom. sur Léop., vi, p. 330 (1892).

Tropæa maasseni, Kirby, Cat. Lep. Het., i, p. 765 (1892).

Tropæa gnoma, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 480 (1877); Ill. Typ. Lep. Het., ii, pl. xxv, fig. 1 (1878).

Tropæa aliena, Butl., Ann. and Mag. Nat. Hist., (5) iv, p. 355 (1879).

Tropæa dulcinea, Butl., Trans. Ent. Soc. Lond., 1881, p. 14.

Tropæa mandschurica, Staud., Rom. sur Léop., vi, p. 331 (1892).

Saturnia felices, Oberth., Etud. d'Entom., xx, p. 67, pl. ix, fig. 61.

Distribution. Throughout INDIA, CEYLON, and BURMA (*Hampson*); EASTERN, CENTRAL and WESTERN CHINA; JAPAN; KIUSHIU; COREA; AMURLAND.

Staudinger (Rom. sur Léop., vi, p. 330) states that he has received only *artemis* from Japan and is of opinion that my specimens from that country are wrongly referred by me to *selene*. He mentions that I do not refer to the length of tail and suggests that if I had seen Bremer's figure and read the description of *artemis* I should have ascertained that the tails are shorter than those of *selene* and differently formed.

Some specimens received from Hertz, who obtained them in the country to the north of Pekin, are referred to by Staudinger as a distinct species under the name

mandschurica; these examples he says are not larger than a medium-sized *selene*. Other specimens received at the same time exceed *artemis* in size but are much smaller than *selene* and have the same shaped tails and the pointed wings of the latter, and therefore differ in these characters from *artemis*. *Mandschurica* is further described as follows—the primaries have double dark transverse lines, of which the outer is generally rudimentary; the secondaries have a dark, sometimes faint, transverse line which turns off sharply to the abdominal margin; ocelli as in *artemis* but rather larger.

Staudinger adds that *selene* has also large ocelli which are tinged with pink on the outer half, but this species may be distinguished from his *mandschurica* by the tails, which in the males are broadly coloured with pink on the upper portion and more slightly so in the females.

Ningpoana, Feld., is described as having the outer lines hardly conspicuous, smaller ocelli and being entirely without lilacine markings on the anal portions of the secondaries. *Gnoma*, Butl., has narrower and more divergent tails than *artemis*, and *dulcinea*, Butl., appears to be a slight modification of *gnoma*.

I find that the species varies in expanse from 108 to 153 millim. in the male and from 116 to 168 millim. in the female. In colour the variation is from pale bluish-green to yellow faintly tinged with green. None of the transverse markings is constant; in some specimens one or other of the lines may be strongly defined, whilst in other examples all the lines may be entirely absent: the ocelli vary in size and shape, and the tails may be as short and obtuse as in *A. isabellæ* from Europe or as long as in extremes of the typical form of *A. selene*. The pink coloration on the upper portion of the tails and the outer parts of the ocelli is sometimes present and sometimes absent in either sex, and in Indian as well as in Eastern Asian specimens.

All these variations together with their intergrades, and with other aberrations in addition, are represented in the series of twenty-five examples which I have retained out of a large number of specimens received from Amurland, Corea, and various parts of China and Japan.

It is of the greatest importance when dealing with a variable species, such as *A. selene*, to have an extensive series in which all the named forms are represented as well as the connecting links. Had Dr. Staudinger pos-

sessed the necessary material and at the same time studied the synonymy of the species as cited in my paper (P.Z.S., 1888, p. 634) he would have found his description of *mandschurica* superfluous.

3. *Actias dubernardi*.

Tropæa dubernardi, Oberth., Bull. Soc. Ent. Fr., 1897, p. 174 (fig. 1).

Oberthür describes this species from Tsekou.

Hab. WESTERN CHINA.

Genus ATTACUS.

Linn.; Hampson, Fauna Brit. Ind., Moths, i, p. 15 (1892).

4. *Attacus cynthia*.

Phalæna cynthia, Drury, Ill. Exot. Ent., ii, pl. vi, fig. 2 (1773).

Philosamia cynthia, Kirby, Cat. Lep. Het., p. 748 (1892).

Attacus walkeri, Feld., Wien. ent. Mon., vi, p. 34 (1862).

Attacus pryeri, Butl., Proc. Zool. Soc. Lond., 1878, p. 388; Ill. Typ. Lep. Het., iii, pl. xliii, fig. 5 (1879).

Attacus cynthia, Leech, Proc. Zool. Soc. Lond., 1888, p. 634;

Hampson, Fauna Brit. Ind., Moths, i, p. 16 (1892).

The species is represented in the area here dealt with by the forms *pryeri* and *walkeri*.

Distribution. SIKHIM; ASSAM; ? CEYLON (*Hampson*); NORTHERN, EASTERN, CENTRAL, and WESTERN CHINA; JAPAN; KIUSHIU.

Genus CALIGULA.

Moore, Trans. Ent. Soc. Lond., (3), i, p. 321 (1862).

5. *Caligula japonica*.

Caligula japonica, Moore, Trans. Ent. Soc. Lond., 1862, p. 322 (pupa-case); Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 479 (1877); Ill. Typ. Lep. Het., ii, pl. xxvi, fig. 2 (1878); Leech, Proc. Zool. Soc. Lond., 1888, p. 633.

Caligula castanea, Swinhoe, Cat. Lep. Het. Oxford, p. 249 (1892).

I met with this very variable species in October at Nikko and my native collector obtained it in the island of Kiushiu.

Col. Swinhoe considers his *castanea* to be a pale form of *C. japonica*, and in this opinion I quite concur. The form is not an uncommon one.

Distribution. JAPAN; KIUSHIU.

6. *Caligula boisduvalii*.

Saturnia boisduvalii, Evers., Bull. Mosc., 1846, (3), p. 83, pl. i, fig. 1; 1847, p. 7, pl. iv, fig. 5; Herr.-Schäff., Schmett. Eur., vi, figs. 148—150 (1849).

Caligula jonassii, Butl., Ann. and Mag. Nat. Hist., (4), xx, p. 479 (1877); Ill. Typ. Lep. Het., ii, pl. xxv, fig. 2 (1878); Leech, P.Z.S., 1888, p. 633.

Neoris jonasi, Kirby, Cat. Lep. Het., p. 761 (1892).

I met with this species at Oiwake and Nikko in September and October. There was a fine series from Yokohama in Pryer's collection.

Staudinger (Rom. sur. Léop., vi, p. 325) suggests that the Japanese and Amurland forms of this species should be known as var. *jonasi*, as they differ from the type, which is from Kiachta, in being smaller and darker. The Japanese specimens in my series are larger and more tinted with olivaceous than those from Amurland.

Distribution. SIBERIA; AMURLAND; JAPAN.

Genus ANTHEREA.

Hübner; Hampson, Fauna Brit. Ind., Moths, i, p. 18 (1892).

7. *Antheræa pernyi*.

Saturnia pernyi, Guérin, Rév. Zool., 1855, p. 6, pl. vi, fig. 1.

Bombyx yamamai, Guérin, op. cit., 1861, p. 435, pls. xi—xiii.

Antheræa confucii, Moore, Proc. Zool. Soc. Lond., 1874, p. 578.

Antheræa hazina, fentoni, calida, morosa, Butl., Trans. Ent. Soc. Lond., 1881, pp. 13, 14.

Saturnia sergestus, Westw., Proc. Zool. Soc. Lond., 1881, p. 143, pl. xiii, fig. 2.

An exceedingly variable species. The examples selected for my series range in colour from pale brown, through ochreous and reddish brown, to "rusty orange"; there are also specimens which are olivaceous in colour, while others are fuliginous-brown. There is some variation in marking, but, as I mentioned in my remarks on the species (Proc. Zool. Soc. Lond., 1888, pp. 633, 634), in no case is the aberration sufficient to justify separation of the specimen or specimens exhibiting it from *A. pernyi*. The "double submarginal line" referred to by Moore (*l. c.*) is not an uncommon character in this species.

Distribution. AMURLAND; NORTHERN, EASTERN, CENTRAL and WESTERN CHINA; JAPAN; KIUSHIU.

8. *Antheræa hartii*.

Antheræa hartii, Moore, Ann. and Mag. Nat. Hist., (6) ix, p. 450 (1892).

This distinct species was described from Newchwang, N. China.

Moore states that the natives rear the larva in a semi-domesticated state on oak trees, and that there are two broods in the year.

Hab. NORTH CHINA.

Genus SATURNIA.

Schrank, Faun. Boica, ii (1), p. 149 (1802).

9. *Saturnia bicti*.

Saturnia bicti, Oberth., Etud. d'Entom., xi, p. 31, pl. vii, fig. 58 (1886).

Oberthür's type was from Western China, but the exact locality is not given. It appears to be most nearly allied to *S. lindia*, Moore from Kulu and Kashmir.

I received a male specimen taken in a locality to the north of Ta-chien-lu. In this example the coloration is darker and the markings more pronounced than in Oberthür's figure of the type; further, the apices are not tinged with pink.

Hab. WESTERN CHINA.

10. *Saturnia pyretorum*.

Saturnia pyretorum, Boisd.; Westw., Cab. Orient. Ent., p. 49, pl. xxiv, fig. 2 (1848).

Heniocha pyretorum, Kirby, Cat. Lep. Het., p. 771 (1892).

A female specimen was bred by Pratt in March 1888 from a pupa he obtained at Kiukiang in the previous year.

Hampson (Fauna Brit. Ind., Moths, i, p. 23) gives *S. cidosa*, Moore as a synonym.

Distribution. SIKHIM (*Hampson*); CENTRAL CHINA.

Genus LOEPA.

Moore, Cat. Lep. Mus. E.I.C., ii, p. 399 (1859).

11. *Loepa katinka*.

Saturnia katinka, Westw., Cab. Orient. Ent., p. 25, pl. xii, fig. 2 (1848).

Loepa miranda, Moore, Trans. Ent. Soc. Lond., (3) ii, p. 424 (1865); Preiss, Abbild. Nachtschmett, pl. v, fig. 2 (1888); Kirby, Cat. Lep. Het., p. 762 (1892).

Loepa katinka, Hampson, Fauna Brit. Ind., Moths, i, p. 25 (1892).

My collectors obtained this species at Chang-yang, Ship-y-shan, Omei-shan, Moupin, and Chia-kou-ho.

The males range in expanse from 90 to 104 millim. and the females from 102 to 114 millim. The smallest male example is from Omei-shan and the largest from Moupin. The smallest female is also from Omei-shan and the largest from Chang-yang. All the specimens were taken in July.

Distribution. HIMALAYAS; ASSAM; YUNNAN; JAVA (*Hampson*); CENTRAL and WESTERN CHINA.

12. *Loepa oberthüri*.

Saturnia oberthüri, Leech, Entom., xxiii, p. 49 (1890).

Loepa dogninia, Sonthonnax, Échange, 1892, p. 20.

A male specimen from Ichang, taken in August.

Hab. CENTRAL CHINA.

Genus RHODINIA.

Rhodia, Moore, Proc. Zool. Soc. Lond., 1872, p. 578 (*nom. præocc.*).

Rhodinia, Staud., Rom. sur Lép., vi, p. 327 (1892).

13. *Rhodinia fugax*.

Rhodia fugax, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 480 (1877); Ill. Typ. Lep. Het., ii, pl. xxvi, fig. 1 (1878); Leech, Proc. Zool. Soc. Lond., 1888, p. 633.

Saturnia diana, Oberth., Bull. Soc. Ent. Fr., (6) vi, p. xlvii (1886).

There was a nice series from Yokohama in Pryer's collection. The var. *diana*, Oberth., is more suffused and darker than the type.

Distribution. AMURLAND; JAPAN.

14. *Rhodinia davidi*.

Saturnia davidi, Oberth., Etud. d'Entom., xi, p. 31, pl. vii, fig. 51 (1886).

Rhodia davidi, Kirby, Cat. Lep. Het., p. 762 (1892).

Oberthür describes this species from Western China, but does not indicate the exact locality. It is nearly allied to *R. jankowskii*, Ob., from Askold, but in colour it resembles the female of *R. fugax*, Butl.

Hab. WESTERN CHINA.

Genus SALASSA.

Moore; Hampson, Fauna Brit. Ind., Moths, i, p. 26 (1892).

15. *Salassa thespis*.

Antheræa thespis, Leech, Entom., xxiii, p. 112 (April, 1890).

Rhodia thespis, Kirby, Cat. Lep. Het., p. 762 (1892).

? *Saturnia olivacea*, Oberth., Etud. d'Entom., xiii, p. 44, pl. x, fig. 107 ♂ (May, 1890).

I originally described this species from a female specimen received from Ship-y-shan, taken in September. I have since received another example of the same sex from Pu-tsu-fong.

Oberthür describes a male specimen, taken by Mgr. Biet at Ta-chien-lu, under the name *olivacea*. This is probably the male sex of *A. thespis*, and differs from the female in being smaller and in having the transverse bands more distinct.

The species appears to be nearly allied to *S. lola*, Westw., from Sikhim.

Rothschild (Novit. Zool., ii, p. 45) refers *S. megasticta*, Swinhoe (Trans. Ent. Soc. Lond., 1894, p. 153), to *A. thespis* as an aberration.

Distribution. CENTRAL and WESTERN CHINA; NORTH INDIA.

Genus AGLIA.

Ochs., Schmett. Eur., iii, p. 11 (1810).

16. *Aglia tau*.

Bombyx tau, Linn., Syst. Nat., i, p. 497 (1758); Hübn., Bomb., pl. xiii, figs. 51, 52 (1800?).

Aglia tau, var. *japonica*, Leech, Proc. Zool. Soc. Lond., 1888, p. 632.

I have specimens of both sexes of var. *japonica* from Yesso, some of which are from Hakodate.

Distribution. EUROPE.—AMURLAND; YESSO.

Family BRAHMÆIDÆ.

Genus BRAHMÆA.

Walk., Cat. Lep. Het., vi, p. 1315 (1855).

17. *Brahmæa certhia*.

Bombyx certhia, Fabr., Ent. Syst., iii, p. 412 (1793).

Saturnia lunulata, Brem. and Grey, Motsch. Etud. Ent., i, p. 64 (1852).

Brahmæa lunulata, Mén., Rom. sur Lép., iii, p. 345 (1887).

Saturnia undulata, Brem. and Grey, Schmett. nörd. China, p. 16, pl. v, fig. 3 (1853).

Brahmæa carpenteri, Butl., Ann. and Mag. Nat. Hist., (5) xi, p. 114 (1883).

My collectors obtained five specimens at Kiukiang; these appear to be referable to the form *undulata*. Butler describes a form from Corea as *carpenteri*. Fixsen records

a specimen from Corea which he states agrees with Bremer's figure of *undulata*.

Distribution. AMURLAND ; COREA ; NORTHERN and CENTRAL CHINA.

18. *Brahmæa wallichii*.

Bombyx wallichii, Gray, Zool. Misc, p. 39, pls. 1, 2 (1831).

Brahmæa wallichii, Butl., Ill. Typ. Lep. Het., v, pl. xcv, figs. 5, 6 (1881) ; Kirby, Cat. Lep. Het., p. 724 (1892) ; Hampson, Fauna Brit. Ind., Moths, i, p. 30 (1892).

Brahmæa certhia (part), Leech, Proc. Zool. Soc. Lond., 1888, p. 635.

I received a female specimen from Chang-yang, taken in July.

Distribution. NEPAL ; SIKHIM ; KHÁSI HILLS ; ASSAM ; UPPER BURMA (*Hampson*) ; CENTRAL CHINA.

19. *Brahmæa harseyi*.

Brahmæa harseyi, White, Proc. Ent. Soc. Lond., 1862, p. 26.

Brahmæa whitei, Butl., Ill. Typ. Lep. Het., v, p. 62, pl. xcv, figs. 1, 2 (1881).

One male specimen from Omei-shan and one from the Province of Kwei-chow ; both taken in July.

Distribution. MUSSOORIE ; SIKHIM ; BURMA (*Hampson*) ; WESTERN CHINA.

20. *Brahmæa japonica*.

Brahmæa japonica, Butl., Ent. Mo. Mag., x, p. 56 (1873) ; Ill. Typ. Lep. Het., ii, p. 17, pl. xxvi, fig. 3 (1878) ; Leech, Proc. Zool. Soc. Lond., 1888, p. 635.

Brahmæa mniszcehii, Feld., Reise Nov., Lep., iv, pl. xciii, figs. 4, 5 (1874).

Brahmæa nigrans, Butl., Ent. Mo. Mag., xvii, p. 110 (1880) ; Waterh., Aid, i, pl. xxix (1881).

There was a fine series of this variable species from Yokohama in Pryer's collection, and I have received specimens from Mr. Manley, all evidently bred.

In Felder's figure of *mniszcehii* (4) the abdomen and the ocellus on the inner margin of the primaries are ochreous, but in fig. 5 the body is represented in the proper colour.

Hab. JAPAN.

Family BOMBYCIDÆ.

Genus BOMBYX.

Hübner; Hampson, Fauna Brit. Ind., Moths, i, p. 32 (1892).

21. *Bombyx mori*.

Bombyx mori, Linn., Syst. Nat., i, p. 499 (1758); Hampson, Fauna Brit. Ind., Moths, i, p. 32 (1892); Kirby, Cat. Lep. Het., p. 718 (1892).

Bombyx sinensis, Moore and Hutt., Trans. Ent. Soc. Lond., (3) i, p. 313 (1862); *id.* ii, p. 313 (1865).

Specimens from Yokohama in Pryer's collection.

Distribution. CHINA; in a domesticated state throughout India and Europe (*Hampson*); JAPAN.

22. *Bombyx mandarinus*.

Theophila mandarina, Moore, Proc. Zool. Soc. Lond., 1872, p. 576, pl. xxxiii, fig. 5.

This is probably the wild form of *Bombyx mori*. In colour it is darker, and the markings are distinct; the female is much larger than the same sex of *B. mori*.

Distribution. JAPAN; YESSO; COREA; EASTERN CHINA.

Genus RONDOTIA.

Moore, Ann. and Mag. Nat. Hist., (5) xx, p. 491 (1885).

Ectrocta, Hampson, Fauna Brit. Ind., Moths, i, p. 33 (1892).

23. *Rondotia menciiana*.

Rondotia menciiana, Moore, Ann. and Mag. Nat. Hist., (5) xv, p. 491 (1885).

Rondotia lurida, Fixsen, Rom. sur Lép., iii, p. 346, pl. xv, fig. 8 (1887).

Lurida only appears to differ from *menciiana* by the fringes towards the anal angle of the secondaries not being marked with black.

I have a fine series from Ichang, taken in June, and from a place 30 miles north of Ichang, taken in August.

Distribution. COREA; EASTERN AND CENTRAL CHINA.

24. *Rondotia lineata*, sp. n.

Creamy white. Primaries have a curved and slightly angulated sub-basal line, streak on discocellulars, and submarginal line, all blackish; there is a black apical patch limited inwardly by the submarginal line, and extending along outer margin to just below vein 4. Secondaries have a black curved post-medial line united with a black spot on abdominal margin but not extending to costa; there is a black spot on abdominal margin about one-third from base.

Expanse, ♂ 34-42 millim.; ♀ 42-54 millim.

I have twelve male specimens and five females; these were obtained at Moupin, Wa-shan, Chia-kou-ho, Wa-ssu-kow, Chia-ting-fu, and Chung-king; the latter were bred examples, but unfortunately Mr. Pratt did not take any notes of the habits or appearance of the larva. The species occurs in May, June, and July.

Superficially resembles *R. (Ectrocta) diaphana*, Hampson, but differs principally from that species in the character of the transverse markings.

Hab. WESTERN CHINA.

Genus MUSTILIA.

Walk., Cat. Lep. Het. xxxii, p 580 (1865).

25. *Mustilia falcipennis*.

Mustilia falcipennis, Walk., Cat. Lep. Het., xxxii, p. 581 (1865); Hampson, Fauna Brit. Ind., Moths, i, p. 38 (1892).

One male specimen obtained from a native collector, who probably took it in the neighbourhood of Ta-chien-lu.

Distribution. SIKHIM; BHUTAN (*Hampson*); WESTERN CHINA.

Genus ANDRACA.

Walk., Cat. Lep. Het., xxxii, p. 581 (1865).

26. *Andraca gracilis*.

Andraca gracilis, Butl., Cist. Ent., iii, p. 125 (1885).

Of this species, which was described from Nikko, there were two examples in Pryer's collection from the same locality.

Hab. JAPAN.

Family *EUPTEROTIDÆ*.

Genus *GANGARIDES*.

Moore, Proc. Zool. Soc. Lond., 1865, p. 821.

27. *Gangarides roseus*.

Apona rosca, Walk., Cat. Lep. Het., xxxii, p. 513 (1865).

Gangarides rosca, Moore, Proc. Zool. Soc. Lond., 1865, p. 821.

Gangarides dharma, Moore, *l.c.*, pl. xliii, fig. 7.

Gangarides roseus, Hampson, Fauna Brit. Ind., Moths, i, p. 42, (1892).

I have examples from Chang-yang, Ichang, Chia-ting-fu, Moupin, and the province of Kwei-chow, taken in July and August. These make a variable series; some of the specimens agree with *dharma*, Moore, others are intermediate between *dharma* and *roseus*.

Distribution. SIKHIM; BHUTAN; BURMA (*Hampson*); CENTRAL AND WESTERN CHINA.

Genus *APHA*.

Walk., Cat. Lep. Het., v. p. 1180 (1855).

28. *Apha tychoona*.

Apha tychoona, Butl., Ent. Mo. Mag., xiv, p. 207 (1878); Ill. Typ. Lep. Het., ii, p. 18. pl. xxvii, fig. 5 (1878).

A common species in Japan, Yesso, and Kiushiu. I received specimens from Chang-yang, Moupin, and the province of Kwei-chow.

Distribution. JAPAN; YESSO; KIUSHIU; CENTRAL and WESTERN CHINA.

Genus *APONA*.

Walk., Cat. Lep. Het., vii, p. 1762 (1856).

Hampson, Fauna Brit. Ind., Moths, i, p. 52 (1892).

29. *Apona mandarina*.

Jana mandarina, Leech, Entom., xxiii, p. 112 (1890).

I have specimens from Chang-yang, Omei-shan, Chia-kou-ho, Pu-tsu-fong, and the province of Kwei-chow, taken in June and July. The species varies in ground tint from ashy-grey through fawn colour to a dark chestnut.

Distribution. CENTRAL and WESTERN CHINA.

Genus EUPTEROTE.

Hübner ; Hampson, Fauna Brit. Ind., Moths, i, p. 54 (1892).

30. *Eupterote chinensis*, sp. n.

♂ Pale yellow. Primaries have some chocolate marks on the costa and the apical area is clouded with the same colour ; there are indications of two postmedial lines on costal area, but these only extend to vein 6 ; submarginal wavy, but not clearly defined, preceded by one or two chocolate spots towards inner margin. Secondaries have an indistinct, waved, submarginal line, preceded by chocolate spots towards costa and inner margin.

Under surface as above, but the costa of primaries is broadly chocolate and there are some spots of the same colour on the costa of secondaries.

Antennæ, head and fore legs chocolate brown.

♀ Brighter yellow, without submarginal line and chocolate markings on costa and apical area on both surfaces.

Expanse, ♂ 72-80 millim. ; ♀ 89-92 millim.

Eight male specimens and two females from the province of Kwei-chow, June and July.

One male agrees with the female in absence of marking.

Hab. CHINA.

Genus PRISMOSTICTA.

Butl., Ann. and Mag. Nat. Hist., (5) vi, p. 67 (1880).

31. *Prismosticta hyalinata*.

Prismosticta hyalinata, Butl., Cist. Ent., iii, p. 125 (1885).

There was a series from Oiwake and Nikko in Pryer's collection and I have specimens taken by Mr. Manley at Yokohama.

Hab. JAPAN.

Family SPHINGIDÆ.

Subfamily ACHERONTIINÆ.

Genus ACHERONTIA.

Ochs., Schmett. Eur., iv, p. 44 (1816).

32. *Acherontia atropos*.

Sphinx atropos, Linn., Syst. Nat., i, p. 490 (1758) ; Hübner, Sphing., fig. 70.

Manduca atropos, Kirby, Cat. Lep. Het., p. 700 (1892).

Acherontia styx, Westw., Cab. Orient. Ent., p. 88, pl. xlii, fig. 3 (1848); Hampson, Fauna Brit. Ind., Moths, i, p. 67 (1892).

Acherontia medusa, Butl., Trans. Zool. Soc. Lond., ix, p. 597 (1876); Ill. Typ. Lep. Het., iii, pl. xli, fig. 5 (1879).

I obtained the species in various parts of Japan, where it is very plentiful; I also took a specimen at Gensan. In a series received from Ichang all the specimens were below the average size, and some of the examples measure only 70–73 millim. in expanse. The characters given by Hampson as distinguishing *styx* from *atropos* appear to be of little specific value. The bands on the under surface of the abdomen are sometimes almost absent in European specimens and in the Asiatic form are usually represented by rows of spots. Then with regard to the two medial bands on the under surface of the forewings, these may be present or absent in specimens from either region.

Medusa, Butl., from Japan has no constant character to separate it from the Indian form.

Distribution. Throughout INDIA and CEYLON; ASIA MINOR; SIAM; BORNEO; CELEBES; TIMOR; PHILIPPINES (*Hampson*); COREA; JAPAN; KIUSHIU; CENTRAL, EASTERN, and SOUTHERN CHINA.—EUROPE.—NORTH AFRICA.

33. *Acherontia lachesis*.

Sphinx lachesis, Fabr., Ent. Syst., Suppl., p. 434 (1798).

Acherontia morta, Hübn., Verz. Schmett., p. 140 (1822 ?);
Leech, Trans. Ent. Soc. Lond., 1889, p. 119; Swinhoe,
Cat. Lep. Het. Oxford, p. 31 (1892).

Acherontia satanas, Boisd., Spec. Gén. Léop., i, pl. xvi, fig. 1 (1836).

Acherontia lethe, Westw., Cab. Orient. Ent., p. 88, pl. xlii, fig. 3 (1848).

Acherontia lachesis, Hampson, Fauna Brit. Ind., Moths, i, p. 67 (1892).

Manduca lachesis, Kirby, Cat. Lep. Het., p. 700 (1892).

My collectors met with this species at Kiukiang and various localities in Western China in June, July and August. The specimens do not appear to differ from Indian examples.

Distribution. Throughout INDIA and CEYLON; SIAM; PENANG; JAVA (*Hampson*); CENTRAL and WESTERN CHINA.

Subfamily *SMERINTHINÆ*.[Genus *POLYPTYCHUS*.

Hübner; Hampson, Fauna Brit. Ind., Moths, i, p. 68 (1892).

34. *Polyptychus dyras*.

Smerinthus dyras, Walk., Cat. Lep. Het., viii, p. 250 (1856).

Marumba dyras, Kirby, Cat. Lep. Het., i, p. 708 (1892).

Triptogon cristata, Butl., Proc. Zool. Soc. Lond., 1875, p. 253.

Smerinthus sperchius, Mén., Lep. Mus. Petr., ii, p. 137, pl. xiii, fig. 5 (1857).

Triptogon piceipennis, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 393 (1877); Ill. Typ. Lep. Het., ii, p. 2, pl. xxi, fig. 4 (1878).

Polyptychus dyras, Hampson, Fauna Brit. Ind., Moths, i, p. 69 (1892).

There was a nice series of this variable species in Pryer's collection. I met with examples at Tsuruga in July and received one specimen, captured in June, at Moupin; all these are of the *sperchius* or *piceipennis* form. One male taken at Omei-shan in June is referable to *cristata*, Butl.

Pryer states that the larva in Japan feeds upon chestnut.

Distribution. NORTH INDIA; WESTERN CHINA; JAPAN; KIUSHIU.

35. *Polyptychus echephron*.

Smerinthus echephron, Boisd., Spec. Gén. Lép., Het., i, p. 21, pl. iii, fig. 3 (1875).

Marumba echephron, Kirby, Cat. Lep. Het., i, p. 706 (1892).

Described from Japan and probably a form of *P. dyras* Walk.

Hab. JAPAN.

36. *Polyptychus gaschkewitschii*.

Smerinthus gaschkewitschii, Brem. and Gray, Motsch. Etud. Ent., i, p. 62 (1852); Schmett. nörd. China, p. 13, pl. v, fig. 2 (1853).

Smerinthus complacens, Walk., Cat. Lep. Het., xxxi, p. 40 (1864); Butl., Ill. Typ. Het., iii, p. 2, pl. xli, fig. 4 (1879).

Triptogon roseipennis, Butl., Proc. Zool. Soc. Lond., 1875, p. 257; Trans. Zool. Soc. Lond., ix, p. 588, pl. xci, fig. 6, transf. (1876); Ill. Typ. Lep. Het., iii, p. 2, pl. xli, fig. 3 (1879).

Marumba roseipennis, Kirby, Cat. Lep. Het., p. 707 (1892).

Triptogon complacens, Leech, Proc. Zool. Soc. Lond., 1888, p. 586.

Smerinthus roseipennis, var. *carstanjeni*, Staud., Rom. sur Lép., iii, p. 159, pl. ix, figs. 2 a, 2 b (1887).

Smerinthus gaschkewitschii, var. *carstanjeni*, Staud., Rom. sur Lép., vi, p. 235 (1892).

Smerinthus heynei, Austaut, Le Nat., 1892, p. 68.

A fine series from Yokohama in Pryer's collection. I met with the species at Nagasaki in May and have received it from Hakodate and also from Moupin; the specimens from the latter place were taken in June.

The larva is stated by Staudinger to feed on *Pyrus* and *Crataegus*, whilst Dorries says that it feeds on cherry and plum and is similar in appearance to the larva of *Smerinthus ocellatus*.

Austaut's description of *heynei* evidently applies to Japanese representatives of this species. He refers to *gaschkewitschii* and var. *carstanjeni* as though he considered them distinct species, whilst he does not mention either *roseipennis* or *complacens*.

Distribution. NORTHERN and WESTERN CHINA; JAPAN; KIUSHIU; AMURLAND.

37. *Polyptychus dissimilis*.

Triptogon dissimilis, Brem., Bull. Acad. Petr., iii, p. 475 (1861).

Smerinthus dissimilis, Brem., Lep. Ost-Sib., p. 35, pl. iii, fig. 12 (1864).

Marumba dissimilis, Kirby, Cat. Lep. Het., p. 707 (1892).

Philosphingia perundulans, Swinhoe, Ann. and Mag. Nat. Hist., (6) xix, p. 164 (1897).

There were specimens from Oiwake and Tokio in Pryer's collection which agree with examples from Amurland. In one individual from Kiukiang the body and ground colour of the wings are rosy-brown instead of olive-brown.

Distribution. AMURLAND; JAPAN.

Genus DILINA.

Dalm., Vet. Akad. Handl., 1816, p. 212.

38. *Dilina christophi*.

Smerinthus christophi, Staud., Rom. sur Lép., iii, p. 162, pl. ix, figs. 3 *a, b*, and pl. xi, fig. 1 (1887).

Dilina christophi, Kirby, Cat. Lep. Het., p. 709 (1892).

There were specimens from Fujisan and Yesso in Pryer's collection.

This species, which is closely allied to *D. tiliæ*, can be readily separated by the absence of any green coloration, by the contour of the central fascia, and by the uniform dark brown colour of the thorax. Although my series of *D. tiliæ* comprises 165 specimens and includes all the known aberrations, there is nothing among them that could be mistaken for *D. christophi*.

The larva feeds on *Alnus incana*, W., and is stated to resemble that of *D. tiliæ* very closely.

Distribution. AMURLAND; JAPAN; YESSO.

Genus SMERINTHUS.

Latr., Hist. Nat. Ins., iii, p. 401 (1802).

39. *Smerinthus ocellatus*.

Sphinx ocellata, Linn., Syst. Nat., i, p. 489 (1758).

Smerinthus ocellatus, Kirby, Cat. Lep. Het., p. 711 (1892)

Smerinthus planus, Walk., Cat. Lep. Het., viii, p. 254 (1856).

Smerinthus argus, Mén., Lep. Mus. Petr., p. 126, pl. xiii, fig. 3 (1857).

There were specimens from Yokohama in Pryer's collection. I obtained the species at Gensan, and have received it from Chang-yang and Kiukiang.

The differences between *planus* (= *argus*) and *ocellatus* indicated by Staudinger (Rom. sur Lép., vi, p. 236) do not hold good in my series from Japan, Corea, and North China when they are compared with European specimens. The Asiatic examples usually have the ocellus larger than those from Europe, but this is not invariably the case.

Distribution. EUROPE.—JAPAN; COREA; AMURLAND; NORTHERN and CENTRAL CHINA.

40. *Smerinthus tatarinovii*.

Smerinthus tatarinovii, Brem. and Grey, Motsch. Etud. Ent., i, p. 62 (1852); Schmett. nörd. China, p. 13, (1853); Mén. Cat. Mus. Petr., pl. xiii, fig. 1 (1857).

Ambulyx tartarinovii, Swinhoe, Cat. Lep. Het. Oxford. p. 24 (1892).

Smerinthus eversmanni, Popoff, Bull. Mosc., 1854, ii, p. 182, pl. i, fig. 5.

There were specimens from Yokohama and Yesso in Pryer's collection, and I have received others from the same localities.

Among the specimens in Pryer's series there is one in which the primaries are suffused with pink, and the central band and apical patch are russet-brown, which would appear to be referable to the form from Kiachta, for which Staudinger has proposed the varietal name *brunnea* (Rom. sur Léop., vi, p. 238). The larva feeds on *Ulmus campestris*.

Distribution. AMURLAND; SIBERIA; JAPAN; YESSO; NORTH CHINA.

Genus DAPHNUSA.

Walk., Cat. Lep. Het., viii, p. 237 (1856).

41. *Daphnusa colligata*.

Daphnusa colligata, Walk., Cat. Lep. Het., viii, p. 238 (1856).

Metagastes bieti, Oberth., Etud. d'Entom., xi, p. 29, pl. i, fig. 2 (1886).

A specimen in Pryer's collection; I have also received one example from Ichang and one from Kiukiang, taken in July. Walker's type was from N. China, and that of Oberthür's from Ta-chien-lu.

Distribution. NORTHERN, WESTERN, and CENTRAL CHINA; JAPAN.

Genus LEUCOPHLEBIA.

Westw., Cab. Orient. Ent., p. 46 (1848).

42. *Leucophlebia lineata*.

Leucophlebia lineata, Westw., Cab. Orient. Ent., p. 46, pl. xxii, fig. 2 (1848); Hampson, Fauna Brit. Ind., Moths, i, p. 74 (1892).

One specimen from Kiukiang.

Distribution. INDIA; CEYLON; JAVA (*Hampson*); CENTRAL CHINA.

Subfamily *AMBULICINÆ*.Genus *AMBULYX*.

West., Cab. Orient. Ent. p. 61 (1848).

43. *Ambulyx schauffelbergieri*.

Ambulyx schauffelbergieri, Brem. and Grey, Motsch. Etud. Ent., i, p. 62 (1852).

Ambulyx maculifera, Walk., Cat. Lep. Het., xxxv, p. 1851 (1866); Butl., Ill. Het., v, p. 10, pl. lxxx, fig. 3 (1881).

Ambulyx consanguis, Butl., Ill. Typ. Lep. Het., v, p. 11, pl. lxxx, fig. 4 (1881).

Ambulyx ochracea, Butl., Cist. Ent., iii, p. 113 (1885).

Ambulyx substrigilis (part), Hampson, Fauna Brit. Ind., Moths, i, p. 77 (1892).

Ambulyx trilineata, Rothschild, Novit. Zool., i, p. 88 (1894).

I took this species in June at Nagasaki, and my native collector obtained it at Nikko. There were examples from Yokohama in Pryer's collection. I have received specimens from Chia-ting-fu, Omei-shan, and Moupin, taken in June and July, some of which agree with the form described by Butler as *consanguis*. Most of the Japanese examples are referable to the form *ochracea*.

I have specimens from West China which seem to agree with *trilineata*, Rothschild from Kiushiu, but these are certainly not specifically distinct from *A. schauffelbergieri*.

Distribution. DARJILING; JAPAN; KIUSHIU; COREA; NORTHERN and WESTERN CHINA.

44. *Ambulyx japonica*.

Ambulyx japonica, Rothschild, Novit. Zool., i, p. 87 (1894); *op. cit.*, ii, pl. ix, fig. 6 (1895).

Described from Japan. Possibly a form of *A. schauffelbergieri*, Brem. and Grey. Alphéraky (Rom. sur Léop., ix, p. 166) records *A. japonica* from Corea.

Distribution. JAPAN; COREA.

Genus *BASIANA*.

Walk., Cat. Lep. Het., viii, p. 236 (1856).

45. *Basiana bilineata*.

Basiana bilineata, Walk., Cat. Lep. Het., Suppl., v, p. 1857 (1866); Kirby, Cat. Lep. Het., p. 702 (1892).

Clanis bilineata, Butl., Ill. Typ. Lep. Het., v, p. 14, pl. lxxxi, fig. 4 (1881); Leech, Proc. Zool. Soc. Lond., 1888, p. 587.

Ambulyx bilineata, Hampson, Fauna Brit. Ind., Moths, i, p. 80 (1892).

Clanis undulosa, Moore, Proc. Zool. Soc. Lond., 1879, p. 387.

There were specimens from Yokohama in Pryer's collection, and I have received others from Kiukiang, taken in August, and also from Chang-yang and Moupin, where they were captured in July. Varies in size, colour, and marking.

Fixsen records the species from Corea.

Distribution. NORTHERN INDIA; EASTERN, CENTRAL, and WESTERN CHINA; COREA; JAPAN.

Subfamily CHÆROCAMPINÆ.

Genus AMPELOPHAGA.

Brem. and Grey, Motsch. Etud. Ent., i, p. 61 (1852).

46. *Ampelophaga rubiginosa*.

Ampelophaga rubiginosa, Brem. and Gray, Motsch. Etud. Ent., i, p. 61 (1852); Schmett. nörd. China, p. 11 (1853); Hampson, Fauna Brit. Ind., Moths, i, p. 83 (1892).

Chærocampa rubiginosa, Mén., Cat. Mus. Petr., ii, p. 91, pl. xii, fig. 2 (1857).

Deilephila romanovi, Staud., Rom. sur Léop., iii, p. 158, pl. ix, figs. 1 a, b (1887).

There was a series, comprising specimens from Yokohama and Oiwake, in Pryer's collection. I have received the species from Ichang and Kiukiang, and from several localities in Western China.

Distribution. NORTH - WEST HIMALAYAS; SIKHIM; NÁGAS (*Hampson*); NORTHERN, EASTERN, CENTRAL, and WESTERN CHINA; COREA; AMURLAND; JAPAN.

Genus ACOSMERYX.

Boisd., Spec. Gén. Léop. Het., i, p. 214 (1875).

47. *Acosmeryx anecus*.

Sphinx anecus, Cram., Pap. Exot., iv, p. 124, pl. ccclv, fig. A (1781).

Acosmeryx anceus, Butl., Trans. Zool. Soc. Lond., 1876, p. 544, pl. 90, figs. 11, 12 (larva and pupa).

Six specimens from Yokohama in Pryer's collection. I have one example from Kiukiang, taken in July.

Distribution. HIMALAYAS; NORTH-EAST INDIA; SOUTH INDIA; CEYLON; PENANG; BORNEO; JAVA; AMBOINA (*Hampson*); JAPAN; CENTRAL CHINA.

48. *Acosmeryx iyenobu*.

Acosmeryx iyenobu, Holl., Trans. Amer. Ent. Soc., xvi, p. 71 (1889).

I have not seen this species which Dr. Holland describes from Japan.

Hab. JAPAN.

49. *Acosmeryx naga*.

Philampelus naga, Moore, Cat. Lep. E. I. C., i, p. 271 (1857).

Acosmeryx naga, Kirby, Cat. Lep. Het., i, p. 649 (1892); *Hampson*, Fauna Brit. Ind., Moths, i, p. 83 (1892).

Acosmeryx metanaga, Butl., Ann. & Mag. Nat. Hist., (5) iv, p. 350 (1879).

There was a female specimen in Pryer's collection and my native collector obtained a male at Hakodate in June.

Alphéraky (Rom. sur Lép., ix, p. 167) records this species from Corea.

Distribution. NORTH-WEST and EASTERN HIMALAYAS (*Hampson*); JAPAN; YESSO; COREA.

Genus CHÆROCAMPA.

Dup., Lép. Fr., Suppl., ii, p. 159 (1835).

50. *Chærocampa elpenor*.

Sphinx elpenor, Linn., Syst. Nat., i, p. 491 (1758); Hübn., SpHING., fig. 61.

Theretra elpenor, Kirby, Cat. Lep. Het., p. 650 (1892).

Chærocampa macromera, Butl., Proc. Zool. Soc. Lond., 1875, p. 7; Ill. Typ. Lep. Het., v, p. 7, pl. lxxix, fig. 3, ♂ (1881).

Chærocampa fraterna, Butl., P. Z. S., 1875, p. 247;

I. T. L. H., v, p. 7, pl. lxxix, fig. 4, ♀ (1881).

Chærocampa lewisii, Butl., P. Z. S., 1875, p. 247.

Chærocampa elpenor, Leech, Proc. Zool. Soc. Lond., 1888, p. 584.

I obtained the species at Shimonoseki and Gensan in July; there were specimens from Oiwake in Pryer's collection and I have received others from Hakodate, also from Chang-yang, Kiukiang, Omei-shan and Wa-shan.

Japanese and Chinese specimens (*lewisii*, Butl.) are rather more rosy than, but do not otherwise differ from, European examples.

Distribution. EUROPE.—NORTHERN INDIA; NORTHERN, CENTRAL, and WESTERN CHINA; JAPAN; COREA; AMURLAND.

51. *Chærocampa oldenlandiæ*.

Sphinx oldenlandiæ, Fabr., Syst. Ent., p. 542 (1775).

Xylophanes oldenlandiæ, Moore, Lep. Ceyl., ii, p. 17, pl. lxxxv, fig. 85 (1882).

Xylophanes gortys, Hübn., Zutr. exot. Schmett, iii, p. 28, figs. 513, 514 (1825).

Theretra oldenlandiæ, Kirby, Cat. Lep. Het., p. 653 (1892).

Chærocampa oldenlandiæ, Hampson, Fauna Brit. Ind., Moths, i, p. 87 (1892).

Deilephila proxima, Austaut, Le Nat., 1892, p. 69.

A common species in Japan. Some specimens were bred in the Insect House at the Zoological Society's Garden, London, from pupæ which I brought from Yokohama, where I found the larva feeding commonly on taro and balsam.

I received several specimens from Ichang taken in August.

Austaut redescribes this species under the name "*D. proxima*," comparing it with *japonica*, Staud., no doubt intending *japonica*, Boisd. His description undoubtedly applies to *C. oldenlandiæ*, Fabr., to which he does not refer.

Distribution. EGYPT.—NORTHERN INDIA; CENTRAL CHINA; JAPAN.

52. *Chærocampa japonica*.

Chærocampa japonica, De l'Orza, Léop. Jap., p. 36 (1869);

Boisd., Ins. Léop. Hét., i, p. 241 (1875).

Theretra japonica, Kirby, Cat. Lep. Het., p. 654 (1892).

Pryer refers to this species as common about Yokohama.

I obtained it in Satsuma and at Nagasaki and Hakodate. Fixsen records specimens from Corea and I have examples from Kiukiang and Chang-yang.

Distribution. JAPAN ; YESSO ; KIUSHIU ; COREA ; CENTRAL CHINA.

53. *Chærocampa silhetensis*.

Chærocampa silhetensis, Walk., Cat. Lep. Het., viii, p. 143 (1858); Butl., Ill. Typ. Lep. Het., v, pl. lxxix, fig. 6.

Chærocampa bisecta, Moore, Cat. Lep. E. I. C., p. 278 (1857).

Theretra pinastrina, Mart.; Kirby, Cat. Lep. Het., i, p. 654 (1892).

I have one example from Kiukiang. Pryer obtained the species in the Loochoo islands.

Distribution. Throughout INDIA and CEYLON; JAVA; BORNEO; FORMOSA; JAPAN (*Hampson*); CENTRAL CHINA; LOOCHOO.

54. *Chærocampa clotho*.

Sphinx clotho, Drury, Exot. Ins., ii, pl. xxviii, fig. 1 (1773).

Hathia clotho, Moore, Lep. Ceyl., ii, p. 20, pl. lxxvii, fig. 1 (1882).

Theretra clotho, Kirby, Cat. Lep. Het., p. 655 (1892).

Chærocampa butus, Cram.; Hampson, Fauna Brit. Ind., Moths. i, p. 93 (1892).

I obtained a specimen in Satsuma in the month of May.

Distribution. Throughout INDIA, CEYLON, and BURMA; ANDAMANS; BORNEO; JAVA; KIUSHIU.

55. *Chærocampa lineosa*.

Chærocampa lineosa, Walk., Cat. Lep. Het., viii, p. 144 (1856); Butl., Ill. Typ. Lep. Het., v, p. 9, pl. lxxix, fig. 7

(1881); Hampson, Fauna Brit. Ind., Moths, i, p. 93 (1892).

Theretra lineosa, Kirby, Cat. Lep. Het., p. 656 (1892).

Two specimens from Omei-shan and one from Chang-yang, taken in July.

Distribution. MUSSOOREE; SIKHIM; ASSAM; SYLHET (*Hampson*); CENTRAL and WESTERN CHINA.

56. *Chærocampa striata*.

Theretra striata, Rothschild, Novit. Zool., i, p. 76 (1894).

Rothschild states that this species is closely allied to *C. lineosa*, Walk., but is different in pattern and is barely three-fifths the size.

Hab. JAPAN.

Genus DEILEPHILA.

Ochs., Schmett. Eur., iv, p. 42 (1816).

57. *Deilephila livornica*.

Sphinx livornica, Esp., Schmett., ii, p. 196 (1779); ii, (2), p. 41, pl. xlv, figs. 3-7 (1789?).

Dilephila livornica, Hampson, Fauna Brit. Ind., Moths, i, p. 97 (1892).

Deilephila livornica, Kirby, Cat. Lep. Het., p. 664 (1892).

A series of bred specimens from Wa-shan, July. In these the oblique band of the forewings is narrower than in typical European examples.

Distribution. EUROPE.—NORTH AFRICA.—NORTH-WEST HIMALAYAS; WESTERN CHINA.

58. *Deilephila galii*.

Sphinx galii, Rott., Naturf., viii, p. 107 (1775).

Dilephila galii, Hampson, Fauna Brit. Ind., Moths, i, p. 98 (1892).

Deilephila galii, Kirby, Cat. Lep. Het., p. 665 (1892).

Two specimens in Pryer's collection, one of which was taken in June at Fujisan. I observed an example at Tsuruga in July; this was hovering over flowers in the sunshine. I have also seen this species on the wing, in the day time, in Kashmir.

Distribution. EUROPE.—AMURLAND; JAPAN; KASHMIR.

59. *Deilephila euphorbioides*.

Deilephila euphorbioides, Swinhoe, Cat. Lep. Het. Oxford, p. 22 (1892).

Described from a Japanese specimen in the Oxford Museum. I have not seen this species, which Swinhoe states to be intermediate between *D. biguttata*, Walk., and *D. euphorbiæ*.

Hab. JAPAN.

Genus THERETRA.

Hübner; Hampson, Fauna Brit. Ind., Moths, i. p. 99 (1892).

60. *Theretra nessus*.

Sphinx nessus, Drury, Exot. Ins., ii, p. 46, pl. xxvii, fig. 1 (1773).

Sphinx equestris, Fabr., Ent. Syst., iii, p. 365 (1793).

Theretra nessus, Kirby, Cat. Lep. Het., p. 659 (1892);
Hampson, Fauna Brit. Ind., Moths, i, p. 99 (1892).

Chærocampa nessus, Swinhoe, Cat. Lep. Het. Oxford, p. 18 (1892).

There was a fine series from Yokohama in Pryer's collection. My native collector obtained the species in the island of Kiushiu.

Distribution. HONG-KONG; throughout INDIA, CEYLON, and BURMA; BORNEO; JAVA (*Hampson*); JAPAN; KIU-SHIU.

Genus METOPSILUS.

Dunc., Nat. Libr., Brit. Moths, p. 154 (1836).

61. *Metopsilus mongolianus*.

Pergesa mongoliana, Butl., Proc. Zool. Soc. Lond., 1875, p. 622; Ill. Typ. Lep. Het., ii, p. 4, pl. xxi, fig. 5 (1878).

Metopsilus mongolianus, Kirby, Cat. Lep. Het., p. 660 (1892).

Common at Yokohama. I have one specimen from Kiukiang. Probably a form of *M. velatus*, Walk.

Distribution. JAPAN; COREA; NORTHERN and CENTRAL CHINA.

Subfamily SPIHINGINÆ.

Genus PROTOPARCE.

Burmeister; Hampson, Fauna Brit. Ind., Moths, i, p. 103 (1892).

62. *Protoparce convolvuli*.

Sphinx convolvuli, Linn., Syst. Nat., i, p. 490 (1758);
Hübner, Sphing., fig. 70.

Protoparce orientalis, Butl., Trans. Zool. Soc. Lond., ix, p. 609, pl. xci, figs. 16, 17, larva and pupa (1876).

Protoparce convolvuli, Hampson, Fauna Brit. Ind., Moths, i, p. 103 (1892).

Phlegethontius convolvuli, Kirby, Cat. Lep. Het., p. 690 (1892).

There were four specimens from Yokohama in Pryer's collection. I obtained the species at Fushiki and Hakodate, in Japan. My collectors met with it at Chang-yang and Ichang in Central China, and at Chung-King in Western China.

Distribution. EUROPE.—ASIA.—AFRICA.—AUSTRALIA.

Genus SPHINX.

Linn., Syst. Nat., i, p. 489 (1758).

63. *Sphinx ligustri*.

Sphinx ligustri, Linn., Syst. Nat., i, p. 490 (1758); Hübn., Sphing., pl. xiv, fig. 69.

Sphinx constricta, Butl., Cist. Ent., iii, p. 113 (1885).

Sphinx ligustri, var. *amurensis*, Oberth., Bull. Soc. Ent. Fr., (6) vi, p. 741 (1886).

A native collector obtained one specimen at Hakodate in June. Var. *amurensis*, Oberth. would appear to be identical with the Japanese form described as *constricta* by Butler.

Distribution. EUROPE.—JAPAN; YESSO; MANCHURIA; NORTH CHINA; AMURLAND.

Genus HYLOICUS.

Hübn., Verz. Schmett., p. 139 (1822?).

64. *Hyloicus pinastri*.

Sphinx pinastri, Linn., Syst. Nat., i, p. 492 (1758); Hübn., Sphing., fig. 67.

Hyloicus pinastri, Kirby, Cat. Lep. Het., p. 693 (1892).

Hyloicus caliginus, Butl., Ann. & Mag. Nat. Hist., (4) xx, p. 393 (1877); Ill. Typ. Lep. Het., ii, p. 2, pl. xxi, fig. 6 (1878).

Anceryx pinastri, Leech, Proc. Zool. Soc. Lond., 1888, p. 588.

Typical specimens occur in Japan, but the more common form is *caliginus*, Butl. It appears to be double brooded;

I obtained the species at Ningpo in April and again in various parts of Japan in July.

Distribution. EUROPE. — JAPAN; KIUSHIU; EASTERN CHINA.

Genus PSEUDOSPHERIX.

Burmeister; Hampson, Fauna Brit. Ind., Moths, i, p. 104 (1892).

65. *Pseudosphinx incerta*.

Anceryx incerta, Walk., Cat. Lep. Het., Suppl., i, p. 36 (1864).

Diludia incerta, Butl., Ill. Typ. Lep. Het., iii, p. 4, pl. xli, fig. 7 (1879).

Meganoton incerta, Kirby, Cat. Lep. Het., p. 682 (1892).

Pseudosphinx discistriga (part), Hampson, Fauna Brit. Ind., Moths, i, p. 105 (1892).

Common in Japan. I have received specimens from Ichang, Kiukiang, and Omei-shan. Taken in July and August.

Walker's type is in very bad condition; my specimens agree very well with Butler's figure.

Distribution. NORTHERN, CENTRAL, EASTERN and WESTERN CHINA; JAPAN; LOOCHOO; NORTHERN INDIA.

66. *Pseudosphinx analis*.

Sphinx analis, Feld., Reise Nov., Lep., iv, pl. lxxviii, fig. 4 (1874).

Meganoton analis, Kirby, Cat. Lep. Het., i, p. 682 (1892).

Possibly a form of *P. incerta*, Walk., but as I have only seen Felder's figure I am unable to form any definite conclusion on this point.

Hab. SHANGHAI.

67. *Pseudosphinx discistriga*.

Macrosila discistriga, Walk., Cat. Lep. Het., viii, p. 208 (1856).

Diludia discistriga, Butl., Ill. Typ. Lep. Het., iii, p. 3, pl. xli, fig. 6 (1879).

Diludia melanomera, Butl., Proc. Zool. Soc. Lond., 1875, p. 13; Trans. Zool. Soc. Lond., ix, p. 615, pl. xciv, fig. 4 (1876).

Pseudosphinx discistriga, Hampson, Fauna Brit. Ind., Moths, i, p. 105 (1892).

One specimen from Ichang taken in August. This agrees well with Butler's figure except in its larger size.

Distribution. SYLHET; EAST INDIES; BORNEO; JAVA; NORTHERN, CENTRAL, and SOUTHERN CHINA.

Genus DOLBINA.

Staud., Rom. sur Lép., iii, p. 155 (1887).

68. *Dolbina tancrci*.

Dolbina tancrci, Staud., Rom. sur Lép., iii, p. 155, pl. xvii, fig. 8 (1887); Kirby, Cat. Lep. Het., p. 685 (1892).

Pseudosphinx inexacta, Leech, Proc. Zool. Soc. Lond., 1888, p. 588.

Pryer in his catalogue refers to this species as occurring among yew trees. There were several specimens in his collection and I obtained five examples at Hakodate in August.

The olivaceous coloration and markings of thorax separate this species from *D. inexacta* with which I formerly confused it.

Distribution. AMURLAND; JAPAN; YESSO.

69. *Dolbina inexacta*.

Macrosila inexacta, Walk., Cat. Lep. Het., viii, p. 208 (1856).

Pseudosphinx inexacta, Butl., Ill. Typ. Lep. Het., v, p. 16, pl. lxxxi, fig. 8 (1881); Hampson, Fauna Brit. Ind., Moths, i, p. 104 (1892).

Hyloicus inexacta, Kirby, Cat. Lep. Het., i, p. 694 (1892).

One specimen taken in July at Chang-yang.

This species is readily distinguished from *D. exacta*, Staud., by the white coloration on under surface of abdomen being traversed by an interrupted black stripe.

Distribution. MUSSOORIE; KHÁSIS; BOMBAY (*Hampson*); CENTRAL CHINA.

Genus KENTROCHRYSALIS.

Staud., Rom. sur Lép., iii, p. 157 (1887).

70. *KENTROCHRYSLIS STRECKERI*.

Sphinx streckeri, Staud., Ent. Nachr., vi, p. 252 (Nov. 1880); Rom. sur Lép., iii, p. 157 (1887).

Sphinx davidis, Oberth., Étud. d'Entom., v, p. 27, pl. vii, fig. 9 (Dec. 1880).

Hyloicus davidis, Butl., Trans. Ent. Soc. Lond., 1881, p. 2.

Anceryx davidis, Leech, Proc. Zool. Soc. Lond., 1888, p. 589.

Kentrochrysalis streckeri, Staud., Rom. sur Lép., vi, p. 220 (1892).

There were three specimens from Yokohama in Pryer's collection; these were found on stems of yew trees. This species has also been recorded from Tokio and Nikko.

Distribution. JAPAN; ASKOLD; AMURLAND.

71. *Kentrochrysalis sieversi*.

Kentrochrysalis sieversi, Alph., Rom. sur Lép., ix, p. 164, pl. x, fig. 1 ♂ (1897).

Alphéraky describes *K. sieversi* from Corea. The example figured by him does not seem to differ from *K. streckeri*, except that it is larger and darker, and the markings are more pronounced. One of my Japanese specimens of the last-named species is very much darker than *sieversi*, and the markings are quite as strongly developed, but I cannot see any reason for considering it as specifically distinct from *K. streckeri*.

Hab. COREA.

Subfamily *MACROGLOSSINÆ*.Genus *CINOCON*.

Butl., Trans. Ent. Soc. Lond., 1881, p. 1.

72. *Cinogon askoldensis*.

Smerinthus askoldensis, Oberth., Étud. d'Entom., v, p. 25, pl. i, fig. 3 (1880).

Cinogon cingulatum, Butl., Trans. Ent. Soc. Lond., 1881, p. 2.

Cinogon askoldensis, Kirby, Cat. Lep. Het., p. 639 (1892).

There were specimens from Oiwake and Yesso in Pryer's collection. Butler's type was from Tokio.

Distribution. AMURLAND; JAPAN; YESSO; ASKOLD.

Genus GURELCA.

Kirby, Proc. Roy. Dubl. Soc., (2) ii, p. 330 (1880).

73. *Gurelca hyas*.

Lophura hyas, Walk., Cat. Lep. Het., viii, p. 107 (1856).

Gurelca hyas, Hampson, Fauna Brit. Ind., Moths, i, p. 110 (1892); Alph., Rom. sur Lép., vi, p. 3, pl. i, fig. 2 (1892).

Lophura sangaica, Butl., Proc. Zool. Soc. Lond., 1875, p. 621.

Gurelca sangaica, Kirby, Cat. Lep. Het., p. 643 (1892).

Common in Japan from May to August. I have received the species from Gensan and also from Kiukiang, Chang-yang, Moupin, and Huang-mu-chang. Examples from the North-western Himalayas in my collection agree with Japanese specimens.

Distribution. HONGKONG; SIKHIM; SYLHET; MHOW; JAVA (*Hampson*); NORTH-WEST HIMALAYAS; JAPAN; KIUSHIU; COREA; EASTERN, CENTRAL, and WESTERN CHINA.

74. *Gurelca masuriensis*.

Lophura masuriensis, Butl., Proc. Zool. Soc. Lond., 1875, p. 244, pl. xxxvi, fig. 3; Alph., Rom. sur Lép., ix, p. 119 (1897).

Gurelca masuriensis, Hampson, Fauna Brit. Ind., Moths, i, p. 110 (1892).

Alphéraky records a male specimen from Sé-Tchouen.

Distribution. MUSSOORIE; NORTH-EASTERN HIMALAYAS (*Hampson*); WESTERN CHINA.

Genus RHOPALOPSYCHE.

Butl., Proc. Zool. Soc. Lond., 1875, p. 239.

75. *Rhopalopsyche nycteris*.

Macroglossa nycteris, Koll., Hügel. Kaschm., iv (2), p. 458, pl. xix, fig. 5 (1844).

Rhopalopsyche nycteris, Hampson, Fauna Brit. Ind., Moths, i, p. 111 (1892); Kirby, Cat. Lep. Het., p. 634 (1892).

I have specimens from Chang-yang, Wa-shan, Chia-ting-fu, and Chia-kou-ho, taken in July.

Distribution. HIMALAYAS; KHÁSIS; BURMA (*Hampson*); CENTRAL and WESTERN CHINA.

Genus MACROGLOSSA.

Scop.; *Hampson*, Fauna Brit. Ind., Moths, i, p. 112 (1892).

76. *Macroglossa stellatarum*.

Sphinx stellatarum, Linn., Syst. Nat., i, p. 495 (1758); Hübn., Spbing., pl. ix, fig. 57.

Macroglossa stellatarum, *Hampson*, Fauna Brit. Ind., Moths, i, p. 113 (1892); Kirby, Cat. Lep. Het., p. 629 (1892).

Fairly common in Japan and Yesso; I have received the species from Huang-mu-chang.

Distribution. EUROPE.—NORTH AFRICA.—NORTHERN ASIA; EASTERN, CENTRAL, WESTERN and NORTHERN CHINA; AMURLAND; COREA.

77. *Macroglossa belis*.

Sphinx belis, Cram., Pap. Exot., i, p. 147, pl. xciv, fig. c (1776).

Macroglossa belis, *Hampson*, Fauna Brit. Ind., Moths, i, p. 113 (1892).

My collectors did not obtain this species in any part of China that they visited.

Distribution. CHINA and throughout INDIA and CEYLON (*Hampson*).

78. *Macroglossa bombylans*.

Macroglossa bombylans, Boisd., Sp. Gén. Lép., i, p. 334 (1875); Kirby, Cat. Lep. Het., p. 630 (1892).

Macroglossa walkeri, Butl., Proc. Zool. Soc. Lond., 1875, p. 4; *Hampson*, Fauna Brit. Ind., Moths, i, p. 116 (1892).

I obtained this species in Satsuma in May, at Nikko and Oiwake in September and October; and I have received it from Kiukiang, Chang-yang, and from several localities in Western China.

Distribution. HIMALAYAS and throughout NORTH INDIA (*Hampson*); JAPAN; CENTRAL and WESTERN CHINA.

79. *Macroglossa gilia*.

Macroglossa gilia, Herr.-Schäff., Schmett., pp. 59, 79, pl. xxiii, fig. 107; Hampson, Fauna Brit. Ind., Moths, i. p. 117 (1892); Alph., Rom. sur Lép., ix, p. 119 (1897).

Alphéraky records three specimens, taken at the end of July, at Ja-djòou, in Sé-Tchouen.

Distribution. Throughout INDIA and CEYLON; JAVA (*Hampson*); WESTERN CHINA.

80. *Macroglossa pyrrhosticta*.

Macroglossa pyrrhosticta, Butl., Proc. Zool. Soc. 1875, p. 242, pl. xxxvi, fig. 8.

I took this species at Nagahama and Gensan in June and July; Pryer records it from Yokohama. My collectors obtained specimens at Chang-yang, Kiukiang, and at several localities in Western China. The type was from Shanghai.

Distribution. EASTERN, CENTRAL, and WESTERN CHINA; JAPAN; KIUSHIU; COREA; LOOCHOO ISLANDS.

81. *Macroglossa saga*.

Macroglossa saga, Butl., Ent. Mo. Mag., xiv, p. 206 (1878); Ill. Typ. Lep. Het., ii, p. 1, pl. xxi, fig. 1 (1878).

Macroglossa kiushiuensis, Rothschild, Novit. Zool., i, p. 66 (1894); *op. cit.*, iii, pl. xiii, fig. 2 (1896).

Described from Yokohama. I have not received any Japanese specimens, but there were some examples from Loochoo in Pryer's collection.

M. saga may be separated from its near ally *M. pyrrhosticta* by the uninterrupted black basal patch of the secondaries and by its greater size, and the rather different character of the apical markings of the primaries.

Distribution. JAPAN; KIUSHIU; LOOCHOO.

82. *Macroglossa passalus*.

Sphinx passalus, Drury, Ill. Exot. Ent., ii, pl. xxix, fig. 2 (1773).

Macroglossa passalus, Kirby, Cat. Lep. Het., p. 632 (1892).

Macroglossa proxima, Butl., Proc. Zool. Soc. Lond., 1875, p. 4, pl. 1, fig. 1; Hampson, Fauna Brit. Ind., Moths i, p. 114 (1892).

One specimen from Moupin, June; two from Changyang, July; and one from Ichang Gorge, September.

Distribution. SYLHET; CACHAR; KANARA; CEYLON; TENASSERIM; MALACCA (*Hampson*); CENTRAL and WESTERN CHINA.

Genus SPHECODINA.

Blanch., Hist. Nat. Ins., iii, pl. xx, fig. 4 (1840).

83. *Sphecodina* (?) *caudata*.

Thyreus caudata, Brem. and Grey, Motsch. Etud. Ent., i, p. 62 (1852); Mén., Cat. Mus. Petr., ii, p. 95, pl. xii, fig. 4 (1857).

Sphecodina (?) *caudata*, Kirby, Cat. Lep. Het., p. 638 (1892).

The type of this species was from Pekin. My collectors did not meet with it in any part of China that they visited. Staudinger (Rom. sur Lép., vi, p. 238) records specimens from Amurland, and gives a description of a coloured figure of the larva.

Distribution. NORTH CHINA; AMURLAND.

Genus SATASPES.

Moore, Cat. Lep. E. I. C., i, p. 261 (1857).

84. *Sataspes infernalis*.

Sesia infernalis, Westw., Cab. Orient. Ent., p. 61, pl. xxx, fig. 3 (1848).

Sataspes infernalis, Leech, Trans. Ent. Soc. Lond., 1889, p. 121; Hampson, Fauna Brit. Ind., Moths, i, p. 121, (1892).

Sataspes xylocoparis, Butl., Proc. Zool. Soc. Lond., 1875, p. 239, pl. xxxvi, fig. 1.

I received this species from Ichang, Kiukiang, Chia-ting-fu, and Moupin; fifteen specimens in all, taken in June and July. Butler's type was from Shanghai.

Distribution. SIKHIM; SYLHET; BURMA; HONG-KONG (*Hampson*); EASTERN, CENTRAL and WESTERN CHINA.

Genus HEMARIS.

Dalm., Vet. Akad. Handl., p. 207 (1816).

85. *Hemaris radians*.

Scsia radians, Walk., Cat. Lep. Het., viii, p. 84 (1856).

Hemaris radians, Butl., Ill. Typ. Lep. Het., ii, p. 1, pl. xxi, fig. 2 (1878).

Hemaris mandarina, Butl., Proc. Zool. Soc. Lond., 1875, p. 239, pl. xxxv. fig 2.

There were specimens from Oiwake and Yokohama in Pryer's collection. I took the species at Gensan, Fushiki and Hakodate, and have received examples from Kiukiang.

The rays from the outer marginal border, which are conspicuous in the type form, are altogether absent in *mandarina*, and all gradations between these extremes are exhibited.

Distribution. JAPAN; YESSO; COREA; EASTERN, CENTRAL, and NORTHERN CHINA.

86. *Hemaris alternata*.

Scsia alternata, Butl., Ann. and Mag. Nat. Hist., (4) xiv, p. 366 (1874).

Hemaris alternata, Butl., Ill. Typ. Lep. Het., ii. p. i, pl. xxi, fig. 3 (1878).

According to Pryer, this species would seem to be common about Yokohama; it is recorded from Oiwake and Hakodate, and I obtained specimens at Gensan in July. My native collectors captured four examples at Chang-yang.

Fixsen (Rom. sur Lép., iii, p. 323) suggests that *H. alternata* may be referable to *H. affinis*, but the former is easily separable from the latter.

Distribution. JAPAN; YESSO; COREA; CENTRAL CHINA.

87. *Hemaris affinis*.

Macroglossa affinis, Brem., Bull. Acad. Pétrsb., iii, p. 559 (1861); Lép. Ost-Sib., p. 35, pl. iii, fig. 13 (1864).

Macroglossa sieboldi, Boisd., de l'Orza, Lép. Jap., p. 35 (1869).

Scsia whitelyi, Butl., Ann. and Mag. Nat. Hist., (4) xiv, p. 367 (1874).

There were specimens from Gifu and Yokohama, in Pryer's collection. I received examples from Hakodate, where they were captured in June.

Distribution. JAPAN; YESSO; AMURLAND; NORTH CHINA.

88. *Hemaris beresowskii*.

Hemaris beresowskii, Alph., Rom. sur Lép., ix, p. 120, pl. xii, fig. 9 ♂ (1897).

Alphéraky describes this species, which is closely allied to *H. affinis*, Brem., from Sé-Tchouen. I received two male specimens from Ta-chien-lu, one from Putsu-fong, one from Kia-tung-fu, and a female from Kwei-chow; all these were taken in June and July.

Hab. WESTERN CHINA.

89. *Hemaris staudingeri*.

Hemaris staudingeri, Leech, Entom., xxiii, p. 81 (1890).

Eight specimens from Chang-yang taken in July.

Hab. CENTRAL CHINA.

Genus CEPHONODES.

Hübner, Verz. Schmett., p. 131 (1816).

90. *Cephonodes hylas*.

Sphinx hylas, Linn., Mant., i, p. 539 (1771).

Sesia hylas, Don., Ins. China, ii, pl. xliii, fig. 2 (1799).

Sphinx piens, Cram., Pap. Exot., ii, p. 83, pl. cxlviii, fig. B. (1777).

Hemaris hylas, Saalm., Lep. Madag., i, p. 117, pl. iii, fig. 40 (1884).

Cephonodes hylas, Leech, Proc. Zool. Soc. Lond., 1888, p. 581.

There were six specimens from Yokohama in Pryer's collection. I obtained the species in Satsuma in May, and at Nagasaki in May and June; I have also received specimens from Chia-ting-fu and Moupin.

Distribution. Throughout INDIA to AUSTRALIA.—WEST and SOUTH AFRICA (*Hampson*).—JAPAN; KIU-SHIU; LOOCHOO ISLANDS; WESTERN CHINA.

Family NOTODONTIDÆ.

Genus TARSOLEPIS.

Butl., Ann. and Mag. Nat. Hist., (4) x, p. 125 (1872).

91. *Tarsolepis sommeri*.

Crino sommeri, Hübn., Samml. Ex. Schmett. (1824 ?).

Tarsolepis remicauda, Butl., Ann. and Mag. Nat. Hist., (4) x, p. 125, pl. viii. (1872); Hampson, Fauna Brit. Ind., Moths, i, p. 127 (1892).

Tarsolepis sommeri, Kirby, Cat. Lep. Het., p. 616 (1892).

There was a very poor example of this species, without data, in Pryer's collection. I am informed by Mr. A. E. Wileman that it is not uncommon at light in some parts of Japan.

Distribution. SIKHIM; BORNEO (*Hampson*); JAPAN.

Genus DUDUSA.

Walk., Cat. Lep. Het., xxxii, p. 446 (1865).

92. *Dudusa nobilis*.

Dudusa nobilis, Walk., Cat. Lep. Het., xxxii, p. 447 (1865).

Walker described this species, with which I am not acquainted, from "North China."

Hab. NORTH CHINA.

Genus NADATA.

Walk., Cat. Lep. Het., v, p. 1062 (1855).

93. *Nadata cristata*.

Trabala cristata, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 480 (1877); Ill. Typ. Lep. Het., ii, p. 18, pl. xxvii, fig. 1 (1878).

Nadata cristata, Kirby, Cat. Lep. Het., p. 614 (1892).

Specimens from Oiwake and Yokohama were in Pryer's collection. I took the species at Nagahama in July; Oberthür records it from the isle of Askold and Staudinger from Amurland and North of Pekin.

Distribution. JAPAN; AMURLAND; ASKOLD; NORTH CHINA.

94. *Nadata niveiceps*.

Trabala niveiceps, Walk., Cat. Lep. Het., xxxii, p. 554 (1865).

Nadata niveiceps, Butl., Ill. Typ. Lep. Het., vi, p. 21, pl. civ, fig. 8 (1886); Hampson, Fauna Brit. Ind., Moths, i, p. 130 (1892).

One example of each sex taken in July at Wa-shan. In the male the primaries have an indistinct wavy sub-basal line and medial and postmedial elbowed lines; both sexes have a pale yellow spot in the discal cell.

Distribution. NORTH-WEST HIMALAYAS (*Hampson*); WESTERN CHINA.

95. *Nadata splendida*.

Trabala splendida, Oberth., Etud. d'Entom., v, p. 65, pl. v, fig. 6 (1881).

Nadata splendida, Staud., Rom. sur Lép., vi, p. 366 (1892).

I have one specimen from Chang-yang.

Staudinger, in referring to this species from the Isle of Askold and Amurland, states that the larva, which is almost uniformly greenish white, feeds upon oak.

Distribution. ASKOLD; AMURLAND; CENTRAL CHINA.

Genus PHALERA.

Hübner, Verz. Schmett., 146 (1816).

96. *Phalera fuscescens*.

Phalera fuscescens, Butl., Trans. Ent. Soc., 1881, p. 597.

Phalera staudingeri, Alph., Iris, viii, p. 187 (1895).

There were two specimens, from Oiwake and Fujisan, in Pryer's collection and I obtained one example at Gensan in July.

Alphéraky describes this species from Amurland under the name *staudingeri*; his excellent description of the latter exactly applies to *P. fuscescens*, Butl., which he was evidently not acquainted with as he does not refer to it.

Distribution. JAPAN; COREA; AMURLAND.

97. *Phalera alpherakyi*, sp. n.

♂ Primaries fuscous-grey with several blackish, wavy, transverse lines ; the most prominent of the markings are the double line limiting the pale grey basal area, a single one just beyond the cell, and a double one from the white edged ochreous, somewhat cuneiform apical patch ; there is a blackish lunule surrounded with whitish at end of cell and a lunulate, blackish, sub-marginal line ; the latter is spotted with black between veins 1—4 ; fringes reddish-brown. Secondaries fuscous with a ill-defined pale band just beyond the middle ; fringes whitish marked with reddish-brown at ends of the nervures. Under surface : primaries have the basal three-fourths blackish, the outer limit defined by an oblique darker line ; the outer third of the wing is pale ochreous with a large diffuse blackish patch, traversed by a wavy pale ochreous line, between veins 6 and inner margin : secondaries whitish suffused with fuscous on basal area, which is limited by a blackish band, and on outer fourth except towards outer angle.

Expanse. 58-64 millim.

Two male specimens from Pu-tsu-fong, taken in June or July.

Allied to *P. assimilis*, Brem.

98. *Phalera sigmata*.

Phalera sigmata, Butl., Ann. and Mag. Nat. Hist., (4), xx, p. 473 (1877); Ill. Typ. Lep. Het., ii, pl. xxiv, fig. 9 (1878); Leech, Proc. Zool. Soc. Lond., 1888, p. 641.

A nice series in Pryer's collection from Yokohama. I have one example from Omei-shan which was taken in June or July. Butler's female type was from Hakodate.

Distribution. JAPAN ; YESSO ; WESTERN CHINA.

99. *Phalera flavescens*.

Phalera flavescens, Brem., Lep. Nörd. China, p. 14 (1853).

Trisula andreas, Oberth., Etud. d'Entom., v, p. 38, pl. v, fig. 4 (1880).

Trisula (Phalera) flavescens, Staud., Rom. sur Lép., vi, p. 368 (1892).

Oberthür places this species in *Trisula* and so also does Staudinger with the remark that he is unable to ascertain where the genus was characterised.

Trisula was founded by Moore (Cat. Lep. E.I.C., ii, p. 420) for the reception of *variegata*, Moore, which Hamp-

son (Fauna Brit. Ind., Moths, i, p. 430) states is a Noctua.

There were specimens in Pryer's collection from Yesso and Yokohama. I obtained the species at Gensan and my native collector at Hakodate; I have also received one example from Moupin.

Graeser states that the larva resembles that of *P. bucephala* and feeds on birch.

Distribution. JAPAN; YESSO; COREA; AMURLAND; ASKOLD; NORTHERN and WESTERN CHINA.

100. *Phalera assimilis*.

Pygæra assimilis, Brem. and Grey, Motsch. Etud. d'Ent., i, p. 30 (1852); Schmett. nörd. China, p. 16 (1853).

Phalera assimilis, Kirby, Cat. Lep. Het., i, p. 577 (1892); Alphéraky, Rom. sur Léop., ix, p. 156, pl. xi, fig. 4 (1897).

Phalera ningpoana, Feld., Wien. Ent. Mon., vi, p. 37 (1862).

One male specimen from Omei-shan and a female from Wa-shan; both taken in July.

Distribution. NORTHERN and WESTERN CHINA.

Genus EDEMA.

Walker, Cat. Lep. Het., v, p. 1028 (1855).

101. *Edema nivilinea*.

Edema nivilinea, Leech, Proc. Zool. Soc. Lond., 1888, p. 638, pl. xxxii, fig. 1.

There were two specimens from Oiwake in Pryer's collection and three others, without locality, among his unarranged material.

Hab. JAPAN.

Genus PYDNA.

Walk.; Hampson, Fauna Brit. Ind., Moths, i, p. 138 (1892).

102. *Pydna plumosa*.

Bireta plumosa, Leech, Proc. Zool. Soc. Lond., 1888, p. 620, pl. xxxi, fig. 4.

This species was taken by Pryer at Ohoyama.

Hab. JAPAN.

103. *Pydna southerlandii*.

Bireta southerlandii, Holland, Trans. Amer. Ent. Soc., xvi, p. 73 (1889).

I have several specimens comprised in my variable series of *P. straminea* which appear to agree fairly well with the description of *P. southerlandii*; but without seeing the type of the latter I am unable to form any definite conclusion.

Hab. JAPAN.

104. *Pydna straminea*.

Ceira straminea, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 91 (1877).

Specimens from Yokohama in Pryer's collection. I obtained the species at Gensan in June and have received it from Kiushiu.

Distribution. JAPAN ; KIUSHIU ; COREA ; EASTERN CHINA.

105. *Pydna pallida*.

Bireta pallida, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 473 (1877); Ill. Typ. Lep. Het., ii, p. 12, pl. xxv, figs. 10, 11 (1878).

Pydna pallida, Hampson, Fauna Brit. Ind., Moths, i, p. 140 (1892).

There was a good series from Yokohama in Pryer's collection.

Distribution. SIKHIM ; CHEKIANG (*Hampson*); JAPAN.

106. *Pydna insignis*, sp. n.

Primaries pale buff clouded and suffused with purplish-brown on inner, central and outer marginal areas; there are two black dots at the base of the wing, a transverse series of four dots before the middle, a mark at end of the cell followed by a wavy and curved line with a double dentated line beyond dotted with black on the nervules, there is a series of black dots between the nervules on outer marginal area; the apices are marked with darker purplish-brown. Secondaries fuscous paler on costal area. Fringes of the ground colour marked with darker. Under surface fuscous pale buff on costal and apical areas of primaries and on costal area of secondaries.

Expanse 54 to 74 millim.

I have three male specimens from Omei-shan, one from Pu-tsu-fong and one from Chang-yang taken in June and July.

Hab. CENTRAL and WESTERN CHINA.

In some examples the transverse markings of the primaries are almost obsolete.

107. *Pydna frugalis*, sp. n.

♂ Primaries whitish-brown speckled with blackish on basal area ; there is a rufous streak in cell, its widest extremity enclosing the dark discal mark ; another rufous streak extends obliquely from apex almost to median nervure, between the termination of this streak and the inner margin there are two curved streaks the first of which is rufous and the other dusky ; beyond the middle of the wing there is a double series of black points, the series curved towards inner margin ; black internervular dots on outer margin. Secondaries whitish-brown. Fringes of the ground colour. Under surface paler than above and slightly tinged with ochreous about costal area of primaries.

♀ Primaries browner, the markings less distinct, but with a conspicuous black spot below the median nervure.

Expanse ♂ 42 millim ♀ 50 millim.

One male specimen from Pu-tsu-fong and a female from Moupin, June.

Hab. WESTERN CHINA.

Genus NORRACA.

Moore, Proc. Zool. Soc. Lond., 1881, p. 340.

108. *Norraca retrofusca*.

Norraca retrofusca, Joannis, Bull., Soc. Ent. Fr., 1894, p. clx.

Described from a male specimen taken at Kiang-nan.

Hab. EASTERN CHINA.

Genus ANTICYRA.

Walk., Cat. Lep. Het., v, p. 1091 (1855).

109. *Anticyra combusta*.

Anticyra combusta, Walk., Cat. Lep. Het., v, p. 1092 (1855) ;

Hampson, Fauna Brit. Ind., Moths, i, p. 145 (1892).

One male specimen from Ichang, taken in June.

Distribution. PHILIPPINES ; N. W. HIMALAYAS ; INDIA ; JAVA ; CENTRAL CHINA.

Genus DRYMONIA.

Hüb., Verz. Schmett., p. 144 (1822 ?).

110. *Drymonia chaonia*.

Bombyx chaonia, Hüb., Bomb., pl. iii, figs. 10, 11 (1800 ?).
Drymonia ruficornis, Hüb.; Kirby, Cat. Lep. Het., p. 570 (1892).

There were several specimens from Gifu in Pryer's collection. They agree fairly well with some of my European examples.

Distribution. EUROPE.—JAPAN.

111. *Drymonia trimacula*.

Bombyx trimacula, Esp., Schmett., iii, p. 242, pl. xlvi, figs. 1-3 (1785).

Drymonia trimacula, Kirby, Cat. Lep. Het., p. 571 (1892).
Notodonta trimacula, var. *dodonides*, Staud., Rom. sur Léop., iii, p. 220 (1887).

There was a rather damaged specimen in Pryer's collection, which is undoubtedly referable to this species. Staudinger records a form from Amurland under the name *dodonides*.

Distribution. EUROPE.—AMURLAND; JAPAN.

112. *Drymonia manleyi*.

Drymonia manleyi, Leech, Proc. Zool. Soc. Lond., 1888, p. 639, pl. xxxii, fig. 2.

A series, including both sexes, from Yokohama, in Pryer's collection.

Hab. JAPAN.

113. *Drymonia delia*.

Drymonia delia, Leech, Proc. Zool. Soc. Lond., 1888, p. 640, pl. xxxii, fig. 3.

One male specimen from Oiwake in Pryer's collection.

Hab. JAPAN.

114. *Drymonia circumscripta*.

Drymonia circumscripta, Butl., Cist. Ent., iii, p. 125 (1885).

Two specimens from Nikko in Pryer's collection.

Hab. JAPAN.

115. *Drymonia permagna*.

Drymonia permagna, Butl., Trans. Ent. Soc. Lond., 1881, p. 20.

Three specimens from Yokohama (*Pryer* and *Manley*), I took the species at Hakodate in August.

Hab. JAPAN and YESSO.

Genus BRACHIONYCHA.

Hübner, Verz. Schmett., p. 144 (1822?).

116. *Brachionycha atrovittata*.

Asteroscopus atrovittatus, Brem., Bull. Acad. Pétersb., ii, p. 483 (1861); Lep. Ost-Sib., p. 46, pl. v, fig. 4 (1864).

Brachionycha atrovittata, Kirby, Cat. Lep. Het., p. 562 (1892).

One specimen in poor condition in *Pryer's* collection, probably from Yokohama.

Distribution. JAPAN; AMURLAND.

Genus FENTONIA.

Butl., Trans. Ent. Soc. Lond., 1881, p. 20.

117. *Fentonia ocypete*.

Harpyia ocypete, Brem., Bull. Acad. Pétersb., 1861, p. 481; Lep. Ost-Sib., p. 44, pl. v, fig. 1 (1864).

Fentonia lævis, Butl., Trans. Ent. Soc. Lond., 1881, p. 20; Cist. Ent., iii, p. 129 (1885).

Fentonia ocypete, Hampson, Fauna Brit. Ind., Moths, i, p. 148 (1892); Kirby Cat. Lep. Het., p. 562 (1892).

Uropus ocypete, Oberth., Etud. d'Entom., v, p. 60, pl. viii, fig. 6 (1880).

Uropus (Urocampa) ocypete, Staud., Rom. sur Lép., vi, p. 343 (1892).

I have specimens from Yokohama and Oiwake.

Distribution. SIMLA (*Hampson*); JAPAN; AMURLAND; NORTH CHINA.

Staudinger (Cat. Lep. Eur., 1871) places *ocypete* in *Uropus*. Butler (Trans. Ent. Soc. Lond., 1881) re-

described *ocypete* under the name *lævis*, and founded the genus *Fentonia* for its reception; in 1885, however, he admits his *lævis* to be specifically identical with *ocypete*. In 1892 Staudinger (Rom. sur Lép., vi.) proposed *Urocampa* as a generic name for *ocypete*, and as he does not mention *Fentonia lævis*, it is to be presumed that he considered the latter to be a distinct species.

Genus UROPYIA.

Staud., Rom. sur Lép., vi, p. 344 (1892).

118. *Uropyia meticulodina*.

Notodonta meticulodina, Oberth., Etud. d'Entom., x, p. 16, pl. i, fig. 3 (1884).

Lophopteryx meticulodina, Kirby, Cat. Lep. Het., p. 606 (1892).

Uropyia meticulodina, Staud., Rom. sur Lép., vi, p. 344, pl. iv, fig. 8, larva (1892).

One specimen from Yesso in Pryer's collection. The type was from Sidemi. Staudinger records the species from Amurland, and describes the larva, which he states feeds upon *Juglans mandschurica*.

Distribution. SIDEMI; AMURLAND; YESSO.

Genus CNETHODONTA.

Staud., Rom. sur Lép., iii, p. 215 (1887).

119. *Cnethodonta grisescens*.

Dasychira acronycta, Oberth., Etud. d'Entom., v, p. 35, pl. v, fig. 8, ♀ (1880).

Cnethodonta grisescens, Staud., Rom. sur Lép., iii, p. 214, pl. xii, fig. 11, ♂ (1887).

A male specimen from Oiwake, and a female from Yesso in Pryer's collection.

Distribution. JAPAN; YESSO; ASKOLD; AMURLAND.

Genus STAUROPUS.

Germar, Prod., p. 45 (1811); Hampson, Fauna Brit. Ind., Moths, i, p. 149 (1892).

120. *Stauropus basalis*.

Stauropus basalis, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 90 (1877).

Harpyia taczanowskii, Oberth., Diagn. Lep. Askold, p. 11 (1879); Etud. d'Entom., v, p. 59, pl. ii, fig. 5 (1880).

There were six specimens from Yokohama in Pryer's collection. I obtained the species at Foochau in April, and at Fushiki in August. Moore's type was from Shanghai. Staudinger records it from Amurland.

Distribution. EASTERN CHINA; ASKOLD; AMURLAND; JAPAN.

121. *Stauropus fagi*.

Bombyx fagi, Linn., Syst. Nat., i, p. 508 (1758); Hübn., Bomb., pl. viii, fig. 31 (1800?).

Stauropus fagi, Hampson, Fauna Brit. Ind., Moths., i, p. 149 (1892).

Stauropus persimilis, Butl., Ann. and Mag. Nat. Hist., (5) iv, p. 353 (1879).

Some specimens in Pryer's collection from Oiwake and Yokohama.

Distribution. EUROPE.—JAPAN.

122. *Stauropus comatus*, sp. n.

Primaries white, the basal and inner marginal areas are brownish-grey marked with black and there is a brownish-grey patch beyond the cell extending from costa to vein 5. Secondaries white, the abdominal half suffused with blackish and clothed with long silky brown hairs; there is a brownish-grey submarginal band, this is broad from costa to vein 3, thence narrow and indistinct.

Expanse 76 millim.

One female specimen from Omei-shan, taken in June or July.

Hab. WESTERN CHINA.

Genus SOMERA.

Walk., Cat. Lep. Het., iv, p. 882 (1855).

123. *Somera cyanea*.

Somera cyanea, Leech, Proc. Zool. Soc. Lond., 1888, p. 642, pl. xxxii, fig. 5.

Seven specimens in Pryer's collection from Yokohama and Gifu.

Hab. JAPAN.

Genus CERURA.

Schrank; Hampson, Fauna Brit. Ind., Moths, i, p. 155 (1892).

124. *Cerura furecula*.

Bombyx furecula, Linn., Faun. Suec., p. 298 (1761); Hübn., Bomb., fig. 39 (1800).

Cerura sangaiica, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 90 (1877).

I obtained one specimen at Gensan in June.

As the band in *sangaiica* is generally narrower than in typical *C. furecula* the name might be retained for this Eastern Asian form of the species.

Distribution. EUROPE.—AMURLAND; COREA; NORTH-EAST CHINA.

125. *Cerura lanigera*.

Cerura lanigera, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 474 (1877); Ill. Typ. Lep. Het., iii, p. 10, pl. xliii, fig. 11 (1879).

Cerura furecula (part), Leech., Proc. Zool. Soc. Lond., 1888, p. 644.

There were four specimens from Yokohama in Pryer's collection. These I referred, in error, to *C. furecula* instead of to *C. bifida*, from which species they are hardly separable and of which they may be the Eastern Asian representatives. The central band is not always constricted in the middle as mentioned in the description of *C. lanigera* and in some European examples of *C. bifida* the central band is constricted to the same extent as in typical *C. lanigera*.

One of the four examples from Japan is without any trace of the central band.

Staudinger and Pryer state that the larva of *C. lanigera* feeds on both willow and poplar.

Distribution. AMURLAND; COREA; JAPAN.

Genus DICRANURA.

Boisd., Ind. Méth., p. 54 (1829).

126. *Dicranura vinula*.

Bombyx vinula, Linn., Syst. Nat., i, p. 499 (1758); Hübn., Bomb., pl. ix, fig. 34.

Cerura vinula, Kirby, Cat. Lep. Het., p. 588 (1892).

Dicranura vinula, Hampson, Fauna Brit. Ind., Moths, i, p. 157 (1892).

Dicranura felina, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 474 (1877); Ill. Typ. Lep. Het., ii, p. 12, pl. xxiv, fig. 3 (1878).

Dicranura askolda, Oberth., Etud. d'Entom., v, p. 59, pl. viii, fig. 8 (1880).

There were several specimens in Pryer's collection. I bred a male specimen in June, 1887, from a larva found at Gensan in 1886.

As Pryer points out in his catalogue the larva, which feeds on willow, does not differ at all from European examples. Graeser makes a similar remark concerning the caterpillar in Amurland.

Felina and *askolda* are not worth retaining even as varietal names as similar forms can be found in any representative series from Europe.

Distribution. EUROPE.—AMURLAND; ASKOLD; JAPAN; COREA.

127. *Dicranura erminea*.

Bombyx erminea, Esp., Schmett., iii, p. 100, pl. xix, figs. 1, 2, (1784); Hübn., Bomb., fig. 35, (1800).

Cerura erminea, Kirby, Cat. Lep. Het., p. 588 (1892).

Cerura menciiana, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 89 (1877).

Menciiana, Moore, appears to be a good local form of *D. erminea*. The ground colour of the primaries is grey slightly tinged with violet, and the marking are generally better defined than in the type form. I met with this form at Shanghai and Foochau, and I have received specimens from Omei-shan. A native collector in Japan sent me one example, obtained at Hakodate, which agrees with

the more strongly marked European specimens. Staudinger (Rom. sur Lep., vi, p. 340) records the species from Amurland under the varietal name *candida* and states that this form is whiter than the type and the markings less clearly defined.

Distribution. EUROPE.—AMURLAND; ASKOLD; YESSO; EASTERN and WESTERN CHINA.

Genus PHEOSIA.

Hübner; Hampson, Fauna Brit. Ind., Moths, i, p. 160 (1892).

128. *Pheosia milhauseri*.

Bombyx milhauseri, Fabr., Syst. Ent., p. 577 (1775).
Bombyx terrifica, Hübner, Bomb., pl. viii, figs. 32, 33 (1800).
Hoplitis milhauseri, Kirby, Cat. Lep. Het., p. 595 (1892).
Hybocampa milhauseri, var. *umbrosa*, Staud., Rom. sur Léop., vi, p. 343 (1892).

There were two examples from Ohoyama in Pryer's collection and I received one from Mr. Manley of Yokohama and one from Omei-shan. In all these specimens the ground colour, especially of the secondaries, is darker than in the typical form and they are doubtless referable to var. *umbrosa*, Staud.

Distribution. EUROPE.—AMURLAND; ASKOLD; JAPAN; WESTERN CHINA.

129. *Pheosia pulcherrima*.

Anodonta pulcherrima, Moore, Proc. Zool. Soc. Lond., 1865, p. 814, pl. xliii, fig. 4.
Hypodonta corticalis, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 475 (1877); Kirby, Cat. Lep. Het., p. 595 (1892).
Pheosia pulcherrima, Hampson, Fauna Brit. Ind., Moths, i, p. 161 (1892).

Recorded from Yokohama by Butler under the name *corticalis*.

Distribution. SIKHIM; JAPAN

Genus MICROPHALERA.

Butl., Cist. Ent., iii, p. 119 (1885).

130. *Microphalera grisea*.

Microphalera grisea, Butl., Cist. Ent., iii, p. 120 (1885).

I obtained this species at Hakodate and there were specimens also from Yesso in Pryer's collection.

Hab. YESSO.

131. *Microphalera insignis*.

Destolmia insignis, Butl., Trans. Ent. Soc. Lond., 1881, p. 19.

Microphalera insignis, Kirby, Cat. Lep. Het., p. 594 (1892).

Butler describes this species from Tokio. I did not meet with it and it was not represented in Pryer's collection.

Hab. JAPAN.

Genus NOTODONTA.

Ochs.; Hampson, Fauna Brit. Ind., Moths, i, p. 162 (1892).

132. *Notodonta lineata*.

Notodonta lineata, Oberth., Etud. d'Entom., v, p. 61, pl. ii, fig. 7 (1880).

One specimen in Pryer's collection. The type was from the Isle of Askold.

Distribution. ASKOLD; AMURLAND; JAPAN.

133. *Notodonta monctaria*.

Notodonta monctaria, Oberth., Etud. d'Entom., v, p. 62, pl. ii, fig. 6 (1880).

Stauropus monctaria, Kirby, Cat. Lep. Het., p. 560 (1892).

There were three specimens in Pryer's collection and I took one example at Nagahama in July. Oberthür's type was from the Isle of Askold.

Distribution. ASKOLD; AMURLAND; JAPAN.

134. *Notodonta cinerea*.

Peridea cinerea, Butl., Ann. and Mag. Nat. Hist., (5) iv, p. 353 (1878).

Notodonta cinerea, Kirby, Cat. Lep. Het., p. 600 (1892).

Specimens from Yokohama and Gifu in Pryer's collection I obtained the species at Hakodate in August.

Hab. JAPAN and YESSO.

135. *Notodonta gigantea*.

Peridca gigantea, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 474 (1877); Ill. Typ. Lep. Het., ii, pl. xxiv, fig. 6 (1878).

Notodonta gigantea, Kirby, Cat. Lep. Het., p. 600 (1892).

A specimen, probably from Yokohama, in Pryer's collection.

Hab. JAPAN.

136. *Notodonta trachitso*.

Notodonta trachitso, Oberth., Etud. d'Entom., xviii, p. 21, pl. iv, fig. 55 (1894).

Type from Tâ-Tsien-Loû, taken in May.

Hab. WESTERN CHINA.

137. *Notodonta toddii*.

Notodonta toddii, Holl., Trans. Amer. Ent. Soc., xxi, p. 73 (1889).

Dr. Holland describes this species from Japan. He states that there was a bad specimen from Yokohama in Pryer's collection, but I have not been able to identify this.

Hab. JAPAN.

Genus LOPHOCOSMA.

Staud., Rom. sur Lép., iii, p. 222 (1887).

138. *Lophocosma atriplaga*.

Notodonta (Lophocosma) atriplaga, Staud., Rom. sur Lép., iii, p. 220, pl. xii, fig. 8 (1887).

Lophocosma atriplaga, Kirby, Cat. Lep. Het., p. 606, (1892).

A female specimen in Pryer's collection.

Distribution. JAPAN; ASKOLD; AMURLAND.

Genus HYPERÆSCHRA.

Butl., Ann. and Mag. Nat. Hist., (5) vi, p. 65 (1880).

139. *Hyperæschra tenebrosa*.

Phalera tenebrosa, Moore, Proc. Zool. Soc. Lond., 1865, p. 815.

Hyperæschra tenebrosa, Hampson, Fauna Brit. Ind., Moths, i, p. 164 (1892).

One specimen from Yokohama in Pryer's collection.

Distribution. SIKHIM (*Hampson*); JAPAN.

Genus PTILOPHORA.

Steph., Ill. Brit. Ent., Haust., ii, p. 29 (1828).

140. *Ptilophora plumigera*.

Bombyx plumigera, Esp., Schmett., iii, p. 254, pl. 1, figs. 6, 7 (1785).

Ptilophora plumigera, Kirby, Cat. Lep. Het., p. 598 (1892).

One female specimen from Yokohama in Pryer's collection. This is No. 236 of Pryer's catalogue, "Yokohama January," an unusual month for the emergence of this moth.

Distribution. EUROPE.—JAPAN.

Genus LOPHOPTERYX.

Steph., Ill. Brit. Ent., Haust., ii, p. 26 (1829).

141. *Lophopteryx capucina*.

Bombyx capucina, Linn., Syst. Nat., i, p. 507, no. 55 (1758).

Bombyx camolina, Linn., *l.e.*, no. 56; Hübn., Bomb., fig. 19, (1800).

Lophopteryx capucina, Kirby, Cat. Lep. Het., p. 605 (1892).

Lophopteryx camolina, Leech, Proc. Zool. Soc. Lond., 1888, p. 646.

Specimen from Nikko, Fujisan and Oiwake in Pryer's collection. I took examples in June at Hakodate and also met with it at Gensan.

An allied species, *L. saturata*, Walk., is represented in Amurland and the isle of Askold by a form which Graeser (Berl. Ent. Zeitschr., 1888, p. 143) has named *hoegei*.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; COREA.

142. *Lophopteryx umbrosa*, sp. n.

Primaries reddish-brown clouded with darker brown and blackish ; there is a pale mark at outer end of discal cell and between this and the outer margin there is a sinuous line which turns obliquely inwards from third median nervule (vein 4) and terminates on inner margin near the lobe. Secondaries fuscous ; fringes pale brown marked with fuscous. Under surface : primaries fuscous with some pale brown marks on apical portion of costa and on outer margin ; secondaries pale brown with indication of three fuscous bands. Expanse 42 millim.

One male specimen taken at Ni-tou in July.

Hab. WESTERN CHINA.

Allied to *L. ferruginosa*, Moore, from North India.

143. *Lophopteryx pryeri*.

Lophopteryx pryeri, Butl., Ann. and Mag. Nat. Hist., (5) iv, p. 355 (1879).

A long series in Pryer's collection, comprising specimens from Yokohama, Oiwake and Yesso.

In some examples all the wings are deeply suffused with fuscous-brown.

Hab. JAPAN and YESSO.

144. *Lophopteryx* (?) *sinensis*.

Lophopteryx sinensis, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 91 (1877).

The type of this species was from Shanghai. There are two specimens from Chekiang in the National Collection. My collectors do not appear to have met with it in any part of China that they visited.

Hab. NORTH-EAST CHINA.

145. *Lophopteryx ladislai*.

Lophopteryx ladislai, Oberth., Etud. d'Entom., v, p. 66, pl. ii, fig. 3 (1880).

There was one male specimen from Nikko in Pryer's collection. Oberthür's type was from the Isle of Askold and the species has been recorded from various places in Amurland.

This species strongly resembles *L. euculla*, Esp., from Europe.

Distribution. JAPAN ; ASKOLD ; AMURLAND.

Genus PLATYCHASMA.

Butl., Trans. Ent. Soc. Lond., 1881, p. 596.

146. *Platychasma virgo*.

Platychasma virgo, Butl., Trans. Ent. Soc. Lond., 1881, p. 596.

I obtained a specimen at Gensan in July; there were three examples from Nikko in Pryer's collection, and I have received one from Mr. Manley of Yokohama.

Distribution. JAPAN; COREA.

Genus PTEROSTOMA.

Germ., Prodr., ii, p. 42 (1812).

Ptilodontis, Steph., Ill. Brit. Ent., Haust., ii, p. 28 (1828).

147. *Pterostoma griseum*.

Ptilodontis grisea, Brem., Lep. Ost. Sib., p. 45, pl. v, fig. 2 (1864).

Pterostoma griseum, Kirby, Cat. Lep. Het., i, p. 597 (1892).

Pterostoma grisea, var. *brunnea*, Graeser, Berl., ent. Zeitschr., 1888, p. 145.

One male specimen from the Wa-ssu-Kow taken in July.

Distribution. AMURLAND; WESTERN CHINA.

148. *Pterostoma sinicum*.

Pterostoma sinica, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 91 (1877).

Pterostoma palpina, Leech, Proc. Zool. Soc. Lond., 1888, p. 638.

Pterostoma palpina, var. *gigantina*, Staud., Rom. sur Lép., vi, p. 363 (1892).

There were specimens in Pryer's collection from Yokohama and Oiwake; I obtained two examples at Nagasaki in June, and my native collector took the species at Hakodate. Specimens have also been received from Ichang, where they were captured in September.

Staudinger records var. *gigantina* as well as typical *P. palpina* from Amurland.

Distribution. JAPAN; YESSO; KIUSHIU; CENTRAL and EASTERN CHINA.

Genus SPATALIA.

Hübner; Hampson, Fauna Brit. Ind., Moths, i, p. 168 (1892).

149. *Spatalia plusiotis*.

Ptilodontis plusiotis, Oberth., Etud. d'Entom., v, p. 65, pl. vii, fig. 3 (1880).

Pterostoma plusiotis, Kirby, Cat. Lep. Het., i, p. 597 (1892).

There were two male specimens from Oiwake and Nikko in Pryer's collection. I have one from Yokohama taken by Mr. Manley and I obtained one female example at Gensan in July.

This species seems to be closely allied to *S. gemmifera*, Moore from Sikhim.

Distribution. ASKOLD; AMURLAND; JAPAN; COREA.

150. *Spatalia macrodonta*.

Rosama macrodonta, Butl., Cist. Ent., iii, p. 127 (1885).

There was a male specimen in Pryer's collection from Japan but the exact locality was not indicated; it was probably Yokohama. Butler's type of the female was from Pekin.

Distribution. JAPAN; NORTH CHINA.

151. *Spatalia ornata*.

Ptilodontis ornata, Oberth., Etud. d'Entom., x, p. 15, pl. ii, fig. 5 (1884).

Two examples from Yokohama in Pryer's collection. The male specimen is smaller than Oberthür's figure which represents an example from Sidemi. *S. ornata* is probably a form of *S. plusioides*, Moore (Lep. Atk., i, p. 62).

Distribution. SIDEMI; JAPAN.

152. *Spatalia cinnamomea*.

Rosama cinnamomea, Leech, Proc. Zool. Soc. Lond., 1888 p. 637, pl. xxxi, fig. 11.

The type was in Pryer's collection and is from Ohoyama. I took a female at Nagasaki in June.

Hab. JAPAN and KIUSHIU.

Genus GELASTOCERA.

Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 476 (1877).

153. *Gelastocera exusta*.

Gelastocera exusta, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 476 (1877); Ill. Typ. Lep. Het., ii, p. 13, pl. xxiv fig. 2 (1878).

Earias ochroleucana, Staud., Rom. sur Lép., iii, p. 176, pl. viii, fig. 11 (1887); Fixs., *op. cit.*, p. 326.

Specimens from Yokohama and Oiwake in Pryer's collection. I obtained the species at Gensan in June and July. Butler's type was from Hakodate.

The species varies in the tone of the ground colour. The Gensan examples are paler than those from Japan but the pink tinge is stronger than in the specimens from Amurland figured by Staudinger. The markings are identical in all the specimens.

Distribution. JAPAN; YESSO; AMURLAND; COREA.

Genus LEUCODONTA.

Staud., Rom. sur Lép. vi, p. 349 (1892).

154. *Leucodonta bicoloria*.

Bombyx bicoloria, Schiff., Esp., Schmett, iii, pl. xli, fig. 7.

Bombyx bicolora, Hübn., Bomb., pl. v, fig. 18.

Microdonta bicoloria, Kirby, Cat. Lep. Het., p. 603 (1892).

Leucodonta bicoloria, Staud., Rom. sur Lép., vi, p. 349 (1892).

Two specimens in Pryer's collection from Fujisan and the other from Nikko, both taken in June. They are very strongly marked.

Distribution—EUROPE.—AMURLAND; ASKOLD; JAPAN.

Genus ICHTHYURA.

Hübn; Hampson, Fauna Brit. Ind., Moths, i, p. 172 (1892).

155. *Ichthyura anastomosis*.

Bombyx anastomosis, Linn., Syst. Nat., i, p. 506 (1758).

Clostera anastomosis, var. *orientalis*, Fixsen, Rom. sur Lép., iii, p. 350 (1887).

Ichthyura anastomosis, Hampson, Fauna Brit. Ind., Moths, i, p. 172 (1892).

Melalopha anastomosis, Kirby, Cat. Lep. Het., p. 609 (1892).

There were five specimens from Yesso in Pryer's collection and I have received four examples from Pu-tsu-fong, taken in June or July.

The specimens from China as well as those from Yesso agree with European examples.

Distribution. EUROPE.—AMURLAND; COREA; YESSO; WESTERN CHINA.

156. *Ichthyura anachoreta*.

Bombyx anachoreta, Fabr., Mant. Ins., ii, p. 120 (1787); Hübn., Bomb., pl. xxii, fig. 88 (1880).

Ichthyura fulgurita, Walk., Cat. Lep. Het., xxxii, p. 433 (1865).

Melalopha fulgurita, Kirby, Cat. Lep. Het., p. 611 (1892).

Ichthyura anachoreta, Hampson, Fauna Brit. Ind., Moths, i, p. 172 (1892).

A nice series from Yokohama in Pryer's collection. I obtained one example at Hakodate in August and have received specimens from Ichang, Chang-yang, and Pu-tsu-fong, taken in July.

I do not find that the Asiatic specimens of this species differ in any way from the European.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; CENTRAL and WESTERN CHINA; and according to Hampson, throughout INDIA and CEYLON; JAVA.

Genus PLUSIOGRAMMA.

Hampson, Trans. Ent. Soc. Lond., 1895, p. 278.

157. *Plusiogramma aurosigna*.

Plusiogramma aurosigna, Hampson, Trans. Ent. Soc. Lond., 1895, p. 278 (fig.)

One male specimen taken at Chang-yang in August.

Distribution. TENASSERIM; CENTRAL CHINA.

Genus PYGÆRA.

Ochs., Schmett. Eur., iii, p. 224 (1810).

158. *Pygæra timonides*.

Pygæra timonides, Brem., Lep. Ost-Sib., p. 45 (1864).

Pygæra timoniorum, Brem., l.c., pl. v, fig. 3.

Clostera timonides, Oberth., Etud. d'Entom., x, p. 13, pl. ii, fig. 2 (1884).

Gonoclostera latipennis, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 476 (1877); Ill. Typ. Lep. Het., ii, p. 13, pl. xxvii, fig. 2 (1878).

I captured this species at Hakodate in August; there were eight specimens from Yokohama and Nikko in Pryer's collection. Staudinger records one example from a locality to the north of Pekin (Rom. sur Léop., vi, p. 370).

Distribution. AMURLAND; JAPAN; YESSO; NORTH CHINA.

Genus NERICE.

Walk., Cat. Lep. Het., v, p. 1076 (1855).

159. *Nerice davidi*.

Nerice davidi, Oberth., Etud. d'Entom., vi, p. 17, pl. ix, fig. 2 (1881).

Nerice bidentata, Leech, Proc. Zool. Soc., 1888, p. 638.

I obtained two specimens at Hakodate in August. Oberthür's type was from the north of China but the exact locality is not mentioned.

Distribution. JAPAN; NORTH CHINA.

160. *Nerice bipartita*.

Nerice bipartita, Butl., Cist., Ent., iii, p. 119 (1885).

Nerice upina, Alph., Rom. sur Léop., vi, p. 17, pl. 1, fig. 7 (1892).

Butler records this species from Sappora, Nikko and Yesso. There was one example from each of the last named localities in Pryer's collection. Alphéraky records the species under the name *N. upina* from Ou-pin.

Distribution. JAPAN; YESSO; NORTH CHINA.

Family SYNTOMIDÆ.

Genus SYNTOMIS.

Ochs. ; Hampson, *Fauna Brit. Ind.*, Moths, i, p. 212 (1892).

161. *Syntomis erebina*.

Syntomis erebina, Butl., *Trans. Ent. Soc. Lond.*, 1881, p. 5.

Zygaena erebina, Kirby, *Cat. Lep. Het.*, i, p. 90 (1892).

Butler describes this species from Tokio and states that it is allied to the European *S. phegea*. There is an aberrant example in the series at South Kensington Natural History Museum which has the primaries almost entirely black and with but little indications of hyaline markings.

Hab. JAPAN.

162. *Syntomis fortunei*.

Syntomis fortunei, De l'Orza, *Lép. Jap.*, p. 38 (1869).

Zygaena fortunei, Kirby, *Cat. Lep. Het.*, i, p. 92 (1892).

Several specimens from Yokohama in Pryer's collection. I obtained this species at Tsuruga, Nagahama, Shimono-seki, Hakone and Gensan in June and July and my native collector took it at Nikko and Hakodate. One specimen only was received from Chang-yang.

Distribution. JAPAN ; YESSO ; COREA ; CENTRAL CHINA.

163. *Syntomis cingulata*.

Zygaena cingulata, Web., *Obs. Ent.*, p. 109 (1801).

Syntomis annetta, Butl., *Journ. Linn. Soc. Lond.*, Zool., xii, p. 347 (1876) : *Ill. Typ. Lep. Het.*, ii, p. 4, pl. xlii, fig. 1 (1878).

Syntomis atereus, Walk., *Cat. Lep. Het.*, i, p. 128 (1854).

Syntomis fortunei (part) Leech, *Proc. Zool. Soc. Lond.*, 1888, p. 593.

Recorded from China but the exact locality is not indicated by either author.

164. *Syntomis thelebus*.

Zygæna thelebus, Fabr., Mant. Ins., ii, p. 103 (1787); Kirby, Cat. Lep. Het., i, p. 95 (1892).

Syntomis thelebus, Mén., Schrenck's Reisen, Lep., p. 48 (1859); Leech, Proc. Zool. Soc. Lond., 1888, p. 593.

Syntomis germana, Feld., Wien. ent. Mon., vi, p. 37 (1862).

Syntomis mandarinia, Butl., Journ. Linn. Soc. Lond., Zool., xii, p. 349 (1876).

I have an extensive series of this species which comprises specimens from Nagahama, Nagasaki, Tsuruga, Oiwake, Ningpo, Kiukiang, Chang-yang, Foochau, Gensan, Chia-ting-fu, Huang-mu-chang, and the province of Kwei-chow. Pryer gives Ohoyama, Fujisan, and Kanosan as other Japanese localities.

The Ningpo specimens agree with *germana* which, as Felder states, differs from *thelebus* in being smaller in size and in having narrower yellow bands on the abdomen.

Distribution. JAPAN; KIUSHIU; CENTRAL and WESTERN CHINA; COREA; AMURLAND.

165. *Syntomis formosæ*.

Syntomis formosæ, Butl., Journ. Linn. Soc. Lond., Zool., xii, p. 346 (1876).

Zygæna formosa, Kirby, Cat. Lep. Het., i, p. 92 (1892).

Syntomis emma, Butl., *l.c.*, p. 350.

These two insects appear to be forms of a species allied to *S. thelebus*. They were described from Formosa and Foochow.

Hab. EASTERN and NORTH CHINA.

166. *Syntomis pascus*.

Syntomis pascus, Leech, Trans. Ent. Soc. Lond., 1889, p. 124, pl. ix, fig. 1.

Zygæna pascus, Kirby, Cat. Lep. Het., i, p. 94 (1892).

Originally described from Kiukiang. I have since received a number of specimens from Moupin and single examples from Chia-ting-fu and the province of Kwei-chow. Occurs in June and July.

There is some variation in the size of the hyaline spots and in some examples there are two subapical spots. The only specimen I have seen from Kwei-chow has this

additional spot and the black borders of all the wings are much narrower than in any other specimen in the series.

In the original description of this species it is stated that the male has six belts on the abdomen and the female five; but as there is also a band on the first segment of the abdomen it would perhaps be better to amend the description by saying that the male has seven and the female six yellow bands.

Hab. CENTRAL and WESTERN CHINA.

167. *Syntomis curyzona*.

Syntomis curyzona, Leech, Entom., xxxi, p. 153 (1898).

One male specimen from Moupin, June.

Hab. WESTERN CHINA.

168. *Syntomis torquatus*.

Syntomis torquatus, Leech, Trans. Ent. Soc. Lond., 1889, p. 124, pl. ix, fig. 2.

Zygæna torquatus, Kirby, Cat. Lep. Het., i, p. 92 (1892).

Described from a Kiukiang specimen. I have also examples from Chia-kou-ho and Kwei-chow, taken in July, and one from Ichang, taken in August.

Hab. CENTRAL and WESTERN CHINA.

169. *Syntomis xanthoma*.

Syntomis xanthoma, Leech, Entom., xxxi, p. 152 (1898).

Described from four male specimens taken in June or July in the province of Kwei-chow.

Hab. WESTERN CHINA.

170. *Syntomis perixanthia*.

Syntomis perixanthia, Hampson, Cat. Lep. Phal., i, *ined.* (1898).

Occurs at Omei-shan, Moupin, Kwei-chow, Wa-shan, in June. I have a long series, but most of the specimens are from Moupin. The type, which is in the National Collection at South Kensington, is from Formosa.

The hyaline markings vary in size, but appear to be constant in number. In some examples, chiefly females, there is a small yellow spot (not hyaline), seeming to be a detached portion of the pair of spots below the cell.

The males range from 40—48 millim. in expanse, and the females from 45—50 millim.

Distribution. WESTERN CHINA; FORMOSA.

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171. *Syntomis persimilis*.

Syntomis persimilis, Leech, Entom., xxxi, p. 152 (1898).

Three female specimens from Ni-tou and Omei-shan.

Similar to *S. perixanthia* but smaller, and the collar is black instead of yellow.

Hab. WESTERN CHINA.

172. *Syntomis acrospila*.

Syntomis acrospila, Feld., Reise Nov., Lep., iv, pl. cii, fig. 11 (1875).

Zygæna acrospila, Kirby, Cat. Lep. Het., i, p. 94 (1892).

My collectors appear to have met with this species commonly at Wa-shan in July; they also obtained specimens in the same month at Ta-chien-lu, Huang-muchang, Ni-tou, and Chia-kou-ho.

In the Huang-mu-chang example, the hyaline spots in the interno-median interspace are united. I propose the varietal name *confluens* for this form.

Distribution. WESTERN and NORTH-EASTERN CHINA.

173. *Syntomis muirheadi*.

Syntomis muirheadi, Feld., Wien. ent. Mon., vi, p. 37 (1862).

Zygæna muirheadi, Kirby, Cat. Lep. Het., i, p. 95 (1892).

Occurs fairly commonly at Kiukiang in June; I have also received specimens taken in the same month in the province of Kwei-chow and at Ningpo, and others captured in July at Chia-ting-fu.

The Kwei-chow specimens have much larger hyaline spots than the other examples comprised in the series.

Distribution. CENTRAL, WESTERN and NORTH-EASTERN CHINA.

174. *Syntomis swinhoei*.

Syntomis swinhoei, Leech, Entom., xxxi, p. 152 (1898).

Syntomis swinhoei, var. *obsoleta*, Leech, l. c.

Occurs in June and July at Moupin, Chia-ting-fu, and Ningpo.

Distribution. NORTH-EASTERN and WESTERN CHINA.

175. *Syntomis dichotoma*.

Syntomis dichotoma, Leech, Entom., xxxi, p. 153 (1898).

Syntomis dichotoma, var. *concurrrens*, Leech, *l. c.*

The type form appears to be common at Moupin in June, but the variety has only been received from Kia-ting-fu and the province of Kwei-chow.

Hab. WESTERN CHINA.

176. *Syntomis davidi*.

Syntomis davidi, Pouj., Bull. Soc. Ent. Fr., (6) iv, p. cxxxvii (1885).

Zygæna davidi, Kirby, Cat. Lep. Het., i, p. 96 (1892).

I have examples of this species from Chang-yang, Chia-kou-ho, and Wa-shan, taken in June and July; also three specimens from Huang-mu-chang, captured in August.

Hab. CENTRAL and WESTERN CHINA.

177. *Syntomis aucta*.

Syntomis aucta, Leech, Entom., xxxi, p. 153 (1898).

Three specimens from the province of Kwei-chow, taken in June or July.

Hab. WESTERN CHINA.

178. *Syntomis blanchardi*.

Syntomis blanchardi, Pouj., Bull. Soc. Ent. Fr., (6) iv, p. cxxxvi (1885); Hampson, Fauna Brit. Ind., Moths, i, p. 221 (1892).

Zygæna blanchardi, Kirby, Cat. Lep. Het., i, p. 92 (1892).

Described by Poujade from Moupin. I have specimens from that locality and also from Chow-pin-sa, Wa-shan, Omei-shan, and Pu-tsu-fong, taken in June and July.

The specimens exhibit a good deal of variation in the width of the black on outer margin of the primaries; in some examples the black is projected inwards along the fifth vein, and in others there is a similar projection along the second vein also; the black border of the secondaries also varies in width, and the colour of the collar, tegulæ, and abdomen ranges from yellow to dull

crimson. The hyaline portions of the wings may or may not be yellowish, but this seems to be largely a matter of condition.

I am inclined to think that *blanchardi* is probably not specifically distinct from *S. multigutta*.

Distribution. SIKHIM (*Hampson*); WESTERN CHINA.

179. *Syntomis multigutta*.

Syntomis multigutta, Walk., Cat. Lep. Het., i, p. 134 (1854); Hampson, Fauna Brit. Ind., Moths, i, p. 220 (1892).

Hydrusa multigutta, Butl., Ill. Typ. Lep. Het., i, p. 19, pl. vii, fig. 3 (1877); Kirby, Cat. Lep. Het., i, p. 102 (1892).

Four specimens from Ni-tou, taken in July.

The black on the apex of the primaries is broader than in the type. In one example the collar, tegulæ, and ground colour of the abdomen are tinged with crimson.

Distribution. NEPAL; SIKHIM; TIBET; BURMA (*Hampson*); WESTERN CHINA.

180. *Syntomis rubrozonata*.

Syntomis rubrozonata, Pouj., Bull. Soc. Ent. Fr., (6) vi, p. cxvii (1886).

Zygæna rubrozonata, Kirby, Cat. Lep. Het., i, p. 93 (1892).

A male specimen from Moupin and a female from Omei-shan, taken in June. Poujade records three males and one female from Moupin.

Hab. WESTERN CHINA.

181. *Syntomis conseqa*.

Syntomis conseqa, Leech, Entom., xxxi, p. 153 (1898).

One female specimen from Moupin: June.

Allied to *S. rubrozonata*.

Hab. WESTERN CHINA.

182. *Syntomis leucoma*.

Syntomis leucoma, Leech, Entom., xxxi, p. 154 (1898).

One male specimen from Omei-shan: June.

Hab. WESTERN CHINA.

183. *Syntomis pratti*.

Syntomis pratti, Leech, Trans. Ent. Soc. Lond., 1889, p. 123, pl. ix, fig. 3.

Zygæna pratti, Kirby, Cat. Lep. Het., i, p. 95 (1892).

One example of each sex from Kiukiang.

Hab. CENTRAL CHINA.

Family ZYGÆNIDÆ.

Subfamily ZYGÆNINÆ.

Genus ZYGÆNA.

Fabr., Syst. Ent., p. 550 (1775).

184. *Zygæna niphona*.

Zygæna niphona, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 393 (1877); Ill. Typ. Lep. Het., ii, p. 9, pl. xxi, fig. 9 (1878); Leech, Proc. Zool. Soc. Lond., 1888, p. 597.

Anthrocera niphona, Kirby, Cat. Lep. Het., i, p. 73 (1892).

Zygæna christophi, Staud., Rom. sur Léop., iii, p. 173, pl. viii, fig. 9 (1887).

Butler's type was from Yokohama; there was a fine series from Oiwake in Pryer's collection, and my native collector met with the species at Hakodate in August. Staudinger described it from Amurland as *christophi*.

There may be either five or six spots on the upper surface of the primaries; but the sixth spot is always indicated on the under surface, sometimes only faintly. Butler's figure represents a specimen with the spots confluent, and I have two similar specimens in my series; but such variation does not appear to be of frequent occurrence.

Distribution. AMURLAND; JAPAN; YESSO.

Genus AGLAOPE.

Latreille, Gen. Crust. Ins., iv, p. 214 (1809).

185. *Aglaope fasciata*.

Aglaope fasciata, Feld., Wien. ent. Mon., vi, p. 32 (1862).

This species, which is near *Aglaope infausta*, was described by Felder from Ningpo. My collectors did not meet with it in any part of China that they visited.

Hab. CHINA.

Genus BINTHA.

Bintha, Walk., Cat. Lep. Het., xxxi, p. 127 (1864).

Artona (*part*), Hampson, Fauna Brit. Ind., Moths, i, p. 234 (1892).

186. *Bintha gracilis*.

Bintha gracilis, Walk., Cat. Lep. Het., xxxi, p. 127 (1864);
Butl., Ill. Typ. Lep. Het., iii, p. 5, pl. xliii, fig. 3
(1879).

Six specimens from Yokohama in Pryer's collection; I obtained the species at Nagahama and Gensan in July.

Distribution. JAPAN; COREA.

187. *Bintha octomaculata*.

Euchromia octomaculata, Brem., Bull. Acad. Petr., iii, p. 476 (1861); Lep. Ost-Sib., p. 36, pl. iv, fig. 1 (1864).

Bintha octomaculata, Kirby, Cat. Lep. Het., i, p. 110 (1892).

Rhaphidognatha scsiæformis, Feld., Wien. ent. Mon., vi, p. 32 (1862); Reise Nov., Lep., iv, pl. lxxxiii, fig. 1 (1874).

Balataea ægerioides, Walk., Cat. Lep. Het., xxxi, p. iii (1864); Butl., Ill. Typ. Lep. Het., iii, p. 4, pl. xlii, fig. 2 (1879).

Balataea scsiæformis, Kirby, Cat. Lep. Het., i, p. 109 (1892).

Balataea octomaculata, Leech, Proc. Zool. Soc. Lond., 1888, p. 594.

One female specimen from Ohoyama in Pryer's collection; I took four males at Gensan in June and I have received examples from Chang-yang and Ichang.

B. ægerioides, Walk., is not separable from *octomaculata*, Brem., and the former is certainly identical with *scsiæformis*, Feld.

Distribution. AMURLAND; JAPAN; COREA; CENTRAL and NORTH CHINA.

188. *Bintha* (?) *clathrata*.

Bintha clathrata, Pouj., Bull. Soc. Ent. Fr., (6) vi, p. cxvii (1886).

Poujade describes this species from a female specimen received from Moupin.

Hab. WESTERN CHINA.

Genus CHRYSARTONA.

Swinhoe, Cat. Lep. Het. Mus. Oxford, p. 56; Hampson, Fauna Brit. Ind., Moths, i, p. 232 (1892).

189. *Chrysartona stipata*.

Procris stipata, Walk., Cat. Lep. Het., i, p. 114 (1854); Butl., Ill. Typ. Lep. Het., i, p. 13, pl. vii, fig. 9 (1877).

Chrysartona stipata, Hampson, Fauna Brit. Ind., Moths, i, p. 232 (1892); Alph., Rom. sur Lép., ix, p. 121 (1897).

Alphéraky records a female specimen from Tâ-choui-van, in the province Sé-Tchouen.

Distribution. KANGRA; SIKHIM; BURMA; BERNARDMYO (*Hampson*); WESTERN CHINA.

Genus BREMERIA.

Alphéraky, Rom. sur Lép., vi, p. 7 (1892).

190. *Bremeria manza*.

Bremeria manza, Alph., Rom. sur Lép., vi, p. 7, pl. i, fig. 3 (1892); *op. cit.*, ix, p. 122 (1897).

Alphéraky describes this species from a female specimen taken in July near the Heï-hò river in the province of Gan-sou.

Hab. NORTH-WESTERN CHINA.

191. *Bremeria sinica*.

Bremeria sinica, Alph., Rom. sur Lép., ix, p. 122, pl. xii, fig. 6 (1897).

Alphéraky describes a specimen from Sé-Tchouen which he considers to be a female, but is not certain of the sex as the body was damaged. If this should prove to be a male, he suggests that the species should be removed to the genus *Chrysartona*.

Hab. WESTERN CHINA.

Genus ARTONA.

Walk., Cat. Lep. Het., ii, p. 439 (1854).

Artona (*part*), Hampson, Fauna Brit. Ind., Moths, i, p. 234 (1892).

192. *Artona sieversi*.

Artona sieversi, Alph., Rom. sur Lép., vi, p. 5, pl. i, fig. 4 (1892).

Artona dejeani, Oberth., Etud. d'Entom., xix, p. 29, pl. vi, fig. 51 (1894).

My collectors met with this species throughout their journey in Western China during the months of June and July.

Hab. NORTHERN and WESTERN CHINA.

193. *Artona cuneonotata*, sp. n.

Frons white; abdomen blackish above whitish below, legs whitish.

Primaries brownish-black; there is a narrow streak above the cell, a wedge-shaped streak below the cell and a quadrate spot at the outer end of the cell, all pale yellow. Secondaries pale yellow intersected by the black vein 1c and broadly bordered with black. Fringes of all the wings pale yellow. Expanse 20 millim.

One male specimen from Wa-shan and one from Putsu-fong, both taken in July.

Hab. WESTERN CHINA.

Allied to *A. sieversi* but distinguished by the subcostal streak and smaller spot at the end of the cell on the primaries and by the broader borders of the secondaries.

194. *Artona delavayi*.

Artona delavayi, Oberth., Etud. d'Entom., xix, p. 29, pl. v, fig. 39 (1894).

A fine series comprising specimens from How-Kow, Tachien-lu, Moupin, and Chia-Kou-ho; the species occurs in the month of July. Oberthür's types, two males, were from Yunnan.

Distribution. WESTERN CHINA; YUNNAN.

195. *Artona cyanicornis*.

Bintha cyanicornis, Pouj., Bull. Soc. Ent. Fr., (6) vi, p. cxvi (1886).

Poujade describes this species from Moupin. I received a male specimen from Chang-yang and a female from Omei-shan, both taken in June.

Hab. CENTRAL and WESTERN CHINA.

196. *Artona aurulenta*.

Bintha aurulenta, Pouj., Bull. Soc. Ent. Fr., (6) vi, p. cxvi (1886).

Poujade describes this species from one male specimen and five females received from Moupin.

Hab. WESTERN CHINA.

197. *Artona albomacula*, sp. n.

Primaries black with three white spots placed as in *A. aurulenta*, Pouj., i.e., one in the cell, one below cell and a slightly angulated lunule beyond. Secondaries white with broad black borders. Fringes white marked with blackish.

Expanse 20 millim.

One male specimen from Chow-pin-sa taken in May or June.

Hab. WESTERN CHINA.

This may possibly be a colour-aberration of *A. aurulenta*.

198. *Artona superba*.

Artona superba, Alph., Rom. sur Lép., ix, p. 121, pl. xii, fig. 5, ♀ (1897).

Alphéraky describes a female specimen taken on August 27th in the Siaô-tjin-hô valley in the province of Sé-Tchouen (Szechuen).

Hab. WESTERN CHINA.

Genus TASEMA.

Walk.; Hampson, Fauna Brit. Ind., Moths, i, p. 236 (1892).

199. *Tasema mærens*.

Aglaino mærens, Staud., Rom. sur Lép., iii, p. 171 (1887).

Three specimens from Yokohama in Pryer's collection.

Distribution. NORTHERN CHINA; AMURLAND; JAPAN.

This species seems very closely allied to *T. bipars*, Walk., and possibly may be specifically identical with it.

Genus THYRASSIA.

Butl., Journ. Linn. Soc., Zool., xii, p. 355 (1876).

200. *Thyrassia penangæ*.

Syntomis penangæ, Moore, Proc. Zool. Soc. Lond., 1859, p. 198, pl. lx, fig. 7.

Hydrusa penangæ, Kirby, Cat. Lep. Het., i, p. 102 (1892); Swinhoe, Cat. Lep. Het. Oxford, p. 51 (1892).

Moore described this species from Penang. I have a specimen from the province of Kwei-chow taken in June or July.

Distribution. PENANG; WESTERN CHINA.

Swinhoe gives *Syntomis diversa*, Walk. (C.L.H., xxxi, p. 75) as a synonym of *Hydrusa penangæ*, Moore.

Genus CLELEA.

Walk., Cat. Lep. Het., ii, p. 465 (1854).

201. *Clelea sapphirina*.

Clelea sapphirina, Walk., Cat. Lep. Het., ii, p. 465 (1853); Hampson, Fauna Brit. Ind., Moths, i, p. 239 (1892).

Occurs at Chang-yang, Ichang and Omei-shan in June and July. Walker's type is from Hong-Kong.

Distribution. SIKHIM; MOMEIT; BURMA (*Hampson*); CENTRAL, WESTERN and SOUTHERN CHINA.

202. *Clelea syfanica*.

Laurion syfanicum, Oberth., Etud. d'Entom., xix, p. 25, pl. vi, fig. 45 (1894).

One example of each sex received from Moupin, where they were captured in June. Oberthür's specimens (two males) were from the "Vallée du Tong-Hó" and were taken in April and May.

The female has very long simple antennæ.

Hab. WESTERN CHINA.

Genus *ADSCITA*.

Retz.; Kirby, Cat. Lep. Het., i, p. 81 (1892).

203. *Adscita tristis*.

Procris tristis, Brem., Lep. Ost-Sib., p. 97, pl. viii, fig. 4 (1864); Leech, Proc. Zool. Soc. Lond., 1888, p. 594.

Adscita tristis, Kirby, Cat. Lep. Het., i, p. 82 (1892).

Procris esmeralda, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 394 (1877); Ill. Typ. Lep. Het., ii, p. 4, pl. xxi, fig. 8 (1878).

Common in Japan and Corea. I have one example of the type form from Chang-yang taken in June.

Of forty specimens from Japan and Corea eight are of various shades of green (var. *esmeralda*) and seventeen more or less blackish-grey; the remainder are not quite like either typical *tristis* or *esmeralda*.

The insect recorded by Motschulsky, as *Procris budensis*, from Japan should probably be referred to this species.

Distribution. AMURLAND; EAST SIBERIA; JAPAN; COREA; CENTRAL CHINA.

204. *Adscita funeralis*.

Procris funeralis, Butl., Ann. and Mag. Nat. Hist., (5) iv, p. 351 (1879).

Adscita funeralis, Kirby, Cat. Lep. Het., i, p. 82 (1892).

One male specimen taken at Chang-yang in June, and one example of the same sex taken at Gensan in July. Butler's type was from Japan.

Distribution. JAPAN; COREA; CENTRAL CHINA.

205. *Adscita fusca*.

Procris fusca, Leech, Proc. Zool. Soc. Lond., 1888, p. 595,
pl. xxx, figs. 6, 6a.

Adscita fusca, Kirby, Cat. Lep. Het., i, p. 82 (1892).

Four specimens from Oiwake in Pryer's collection and one example from Ichang, the latter taken in June.

Distribution. JAPAN ; CENTRAL CHINA.

206. *Pseudopsyche* ? *yarka*.

Pseudopsyche ? *yarka*, Oberth., Etud. d'Entom., xviii, p. 42,
pl. iv, fig. 49 (1894).

Oberthür describes this species from Ta-chien-lu.

Hab. WESTERN CHINA.

Genus *AREOCERA*.

Hampson, Fauna Brit. Ind., Moths, i, p. 244 (1892).

207. *Areocera chinensis*.

Ino chinensis, Feld., Wien. ent. Mon., vi, p. 31 (1862).

Adscita chinensis, Kirby, Cat. Lep. Het., i, p. 82 (1892).

I obtained specimens at Nagasaki in June; there were two specimens in Pryer's collection from Yokohama.

Distribution. NORTH CHINA ; JAPAN ; KIUSHIU.

Genus *AMURIA*.

Staud., Rom. sur Léop., iii, p. 172 (1887).

208. *Amuria cyclops*.

Amuria cyclops, Staud., Rom. sur Léop., iii, p. 172, pl. viii,
fig. 6 (1887).

One male specimen from Chang-yang, taken in June.

Distribution. AMURLAND ; CENTRAL CHINA.

Genus *ILLIBERIS*.

Walk., Cat. Lep. Het., ii, p. 280 (1854).

209. *Illiberis nigrigemma*.

Glaucopis nigrigemma, Walk., Cat. Lep. Het., i, p. 141 (1854).

Zuma cyaneceula, Herr.-Schäff., Auss. Schmett., i, p. 7, fig. 224 (1855).

Northia cyaneceula, Butl., Ill. Typ. Lep. Het., i, p. 13, pl. vii, fig. 8 (1877).

Illiberis nigrigemma, Kirby, Cat. Lep. Het., i, p. 88 (1892).

Illiberis cyaneceula, Swinhoe, Cat. Lep. Het. Oxford, p. 59 (1892).

This species has been recorded from Hong-Kong and North China. My collectors did not meet with it.

Distribution. NORTH and SOUTH CHINA.

210. *Illiberis translucida*.

Procris translucida, Pouj., Bull. Soc. Ent. Fr., (6) iv, p. cxxxvi (1885).

Adseita translucida, Kirby, Cat. Lep. Het., i, p. 82 (1892).

Northia translucida, Oberth., Etud. d'Entom., xix, pl. vi, fig. 66 (1894).

I have four specimens from Moupin and one from Wai-Sen-Kow, all taken in June.

Hab. WESTERN CHINA.

211. *Illiberis tenuis*.

Northia tenuis, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 394 (1877); Ill. Typ. Lep. Het., ii, p. 9, pl. xxi, fig. 7 (1878).

Illiberis tenuis, Kirby, Cat. Lep. Het., i, p. 88 (1892).

I obtained this species in Satsuma and at Nagasaki in May and at Hakodate in August; there were specimens from Oiwake, Yokohama and Yesso in Pryer's collection. Two specimens have been received from Moupin where they were taken in June.

Distribution. AMURLAND; COREA; JAPAN; YESSO; KIUSHIU; WESTERN CHINA.

Perhaps identical with *I. khasiana*, Moore, which species Hampson refers to his Section III of the genus *Phacusa*, Walker.

212. *Illiberis consimilis*, sp. n.

Closely allied to *I. tenuis*, but the primaries are fuscous grey and the secondaries are slightly tinged with the same colour. The borders of all the wings are very narrow and the costal area of secondaries is not blackish.

Expanse 30 millim.

Two female specimens in Pryer's collection but without exact locality.

Hab. JAPAN.

213. *Illiberis diree*.

Northia diree, Leech, Proc. Zool. Soc. Lond., 1888, p. 596, pl. xxx, fig. 8.

Illiberis diree, Kirby, Cat. Lep. Het., i, p. 88 (1892).

A female example from Gensan taken in June. There are four specimens from North China in the National Museum at South Kensington.

Distribution. COREA ; NORTH CHINA.

214. *Illiberis cybele*.

Northia cybele, Leech, Proc. Zool. Soc. Lond., 1888, p. 596, pl. xxx, fig. 9.

Illiberis cybele, Kirby, Cat. Lep. Het., i, p. 88 (1892).

I took the type (♀) at Gensan in June.

Hab. COREA.

215. *Illiberis sinensis*.

Illiberis sinensis, Walk., Cat. Lep. Het., ii, p. 280 (1854).

Northia sinensis, Leech, Proc. Zool. Soc. Lond., 1888, p. 595, pl. xxx, fig. 20.

I took specimens at Foochau in April and at Gensan in June and have received examples from Ichang, Changyang, Kiukiang, and Mopuin.

Distribution. AMURLAND ; COREA ; JAPAN ; YESSO ; NORTHERN, CENTRAL and WESTERN CHINA.

216. *Illiberis psychina*.

Proeris psychina, Oberth., Etud. d'Entom., v, p. 28, pl. vii, fig. 6 (1880).

Northia psychina, Leech, Proc. Zool. Soc. Lond., 1888, p. 596.

Illiberis sinensis, Kirby, Cat. Lep. Het., i, p. 88 (1892).

I obtained one example at Hakodate in August and there were two specimens in Pryer's collection.

Distribution. ASKOLD; JAPAN; YESSO.

217. *Illiberis ochracea*, sp. n.

Greatly resembling *I. elegans*, Pouj., but with the abdomen dingy-ochreous above and brighter below.

Expanse ♂ 20—26 millim ♀ 30 millim.

Five male specimens and one female from the province of Kwei-chow, one male from Moupin and another from Ichang; all taken in June.

I have one specimen, which I took in Foochau in April, that seems to be referable to this species, but the primaries are rather opaque.

Hab. CENTRAL and WESTERN CHINA.

218. *Illiberis elegans*.

Thyrina elegans, Pouj., Ann. Soc. Ent. Fr., 1886, p. cxliii.

Type from Moupin. I have several specimens from Moupin and two from the province of Kwei-chow.

This species is very closely allied to *I. psychina*.

Hab. WESTERN CHINA.

219. *Illiberis nigra*.

Proeris nigra, Leech, Proc. Zool. Soc. Lond., 1888, p. 595, pl. xxx, figs. 7, 7a.

Adscita nigra, Kirby, Cat. Lep. Het., i, p. 83 (1892).

One female specimen from Ohoyama in Pryer's collection.

Hab. JAPAN.

Genus PHACUSA.

Walk., Cat. Lep. Het., i, p. 150 (1854).

220. *Phacusa djreuuma*.

Phacusa djreuuma, Oberth., Etud. d'Entom., xviii, p. 21, pl. ii, fig. 31 (1893).

Described by Oberthür from Tsé-kou.

Hab. WESTERN CHINA.

Genus PIAROSOMA.

Hampson, Fauna Brit. Ind., Moths, i, p. 243 (1892).

221. *Piarosoma hyalina*.

Arachotia hyalina, Leech, Trans. Ent. Soc. Lond., 1889, p. 123, pl. vii, fig. 6.

Phacusa thibetana, Oberth., Etud. d'Entom., xix, p. 30, pl. v, fig. 23 (1894).

One male specimen from Kiukiang taken in June.

I described this species from Kiukiang and Oberthür redescribed it from Ta-chien-lu and Moupin.

Hab. CENTRAL and WESTERN CHINA.

Subfamily CHALCOSIINÆ.

Genus SORITIA.

Walk., Cat. Lep. Hep., ii, p. 435 (1854).

222. *Soritia leptalina*.

Chalcosia leptalina, Koll., Hügel's Kasch., iv (2), p. 462 (1844).

Eterusia serpunctata, Walk., Cat. Lep. Het., ii, p. 432 (1854).

Heterusia octopunctata, Motsch., Stett. Ent. Zeit., 1872, p. 344.

Soritia leptalina, Hampson, Fauna Brit. Ind., Moths, i, p. 252 (1892).

Two male specimens and eight females from Kweichow; one female from Moupin and four examples of the same sex from Chang-yang. June and July.

The males have a yellow triangular patch extending from the base to beyond the middle of the primaries. The females are variable as regards number of spots; two of

the Chang-yang specimens are referable to *octopunctata* and two to *sexpunctata*. All but two of the Kwei-chow examples are six spotted, one of the exceptions has four spots and the other two only, *i.e.*, one on each primary. The Moupin female has pale straw-coloured secondaries with two very faint spots on each of the wings, and two well developed spots on each primary. One female from Kwei-chow has two spots on the left primary and one on the left secondary, whilst on the opposite pair the primary only is marked with one dot.

Distribution. HIMALAYAS; SYLHET; BURMA; BERNARDMYO (*Hampson*); CENTRAL and WESTERN CHINA.

223. *Soritia elizabetha*.

Eterusia elizabetha, Walk., Cat. Lep. Het., ii, p. 433 (1854).

Heterusia microcephala, Feld., Reise Nov., Lep., iv, pl. lxxxiii, fig. 7 (1874).

It occurs at Chang-yang, Ichang, Kiukiang, and Ta-chien-lu; June, July, and August. I have only two female specimens, both from Ichang taken in August. The only example that I have from Ta-chien-lu is a male taken in July; it is not in very good condition but the yellow is deeper in tone than in any of the other specimens.

Distribution. CENTRAL, WESTERN, and NORTH-EASTERN CHINA.

Genus RETINA.

Walk., Cat. Lep. Het., ii, p. 438 (1854).

224. *Retina costata*.

Retina costata, Walk., Cat. Lep. Het., ii, p. 439 (1854);
Butl., Ill. Typ. Lep. Het., iii, pl. xliii, fig. 7 (1879).

I have received this species from Chang-yang, Ichang, Kiukiang, Omei-shan, and the province of Kwei-chow. The specimen from the last-named locality is a female; this and also two examples of the same sex from Omei-shan have the band as broad as in the male, but in three other females from Omei-shan the band is narrower than in the male. In the Omei-shan specimens the band is orange-red instead of crimson.

Distribution. NORTH, CENTRAL, and WESTERN CHINA.

225. *Retina rubiginosa*, sp. n.

Primaries pinkish tinged with fuscous on basal area ; there is a black streak under median nervure from the base to beyond the middle : apex bordered with black. Secondaries black. Under-surface as above but the basal area of secondaries is tinged with grey.

Expanse 42 millim.

One male specimen from the province of Kwei-chow, taken in June or July.

Hab. WESTERN CHINA.

Genus PIDORUS.

Walk.; Hampson, Fauna Brit. Ind., Moths, i, p. 254 (1892).

226. *Pidorus glaucopis*.

Bombyx glaucopis, Drury., Ill. Exot. Entom., ii, p. 11, pl. vi, fig. 4 (1773).

Pidorus atratus, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 401 (1877); Ill. Typ. Lep. Het., ii, p. 9, pl. xxiii, fig. 9 (1878).

Pidorus glaucopis, Leech, Proc. Zool. Soc. Lond., 1888, p. 613; Hampson, Fauna Brit. Ind., Moths, i, p. 255 (1892).

Several specimens from Yokohama in Pryer's collection. I obtained the species at Shimonoseki and Tsuruga and my collectors at Hakone, Gensan, and Kia-ting-fu. Butler records it from Hakodate as well as from Yokohama.

Variable in size and in the width and shape of the white band of the primaries.

Distribution. SIKHIM; BHUTAN; NÁGAS; CACHAR; SYLHET (*Hampson*); JAPAN; YESSO; COREA; WESTERN CHINA.

227. *Pidorus remota*.

Eterusia remota, Walk., Cat. Lep. Het., ii, p. 431 (1854).

Laurion remota, Butl., Ill. Typ. Lep. Het., ii, p. 9, pl. xxiii, fig. 10 (1878).

There were examples from Yokohama, Nikko, and Tokio in Pryer's collection. I took specimens at Fushiki, Tsuruga, and Gensan; Fixsen records it from Corea.

Three specimens have been received from Kia-ting-fu and one from Chang-yang.

The species varies in size, the average expanse being 57 millim. In some specimens the band of the primaries is much broader than in the type and in others the white portion of the secondaries is much obscured by enlargement of the central black band; in others again the central band of the secondaries is much reduced.

Distribution. JAPAN; COREA; NORTH, CENTRAL, and WESTERN CHINA.

228. *Pidorus geminus*.

Laurion gemina, Walk., Cat. Lep. Het., ii, p. 427 (1854).

Pidorus geminus, Hampson, Fauna Brit. Ind., Moths, i, p. 254 (1892).

One male specimen captured at Omei-shan in May or June.

Distribution. HONGKONG; SIKHIM; SYLHET; MOULMEIN; CAMBODIA; BORNEO (*Hampson*); WESTERN CHINA.

229. *Pidorus euchromoides*.

Eterusia euchromoides, Walk., Cat. Lep. Het., Suppl., i, p. 120 (1864).

Laurion euchromoides, Kirby, Cat. Lep. Het., i, p. 53 (1892).

Two male specimens and one female taken at Gensan in July.

Distribution. NORTHERN CHINA; COREA.

230. *Pidorus fasciatus*, sp. n.

♂ All the wings black with a yellow central fascia, broadest on secondaries. The fascia on primaries is oblique, sometimes slightly curved; fascia of secondaries curved and slightly indented on its inner edge. Under surface as above.

♀ The fascia on all the wings rather broader.

Expanse 38—41 millim.

Three male specimens and five females from Omei-shan, and one male from Moupin; all taken in May and June.

Hab. WESTERN CHINA.

Genus ARBUDAS.

Moore, Lep. Atk., p. 19 (1879).

231. *Arbudas albofascia*, sp. n.

Frons metallic green, palpi black above whitish beneath; thorax violet, metallic; abdomen bronzy green. Primaries blackish, the basal area tinged with metallic green and violet, and limited by an almost straight whitish fascia, the outer edge of which is irregular. Secondaries white with a black outer marginal border wide towards costa but narrow before and angle.

Expanse 16—20 millim.

Five male specimens and two females from Ta-chien-lu, taken in July.

Hab. WESTERN CHINA.

Genus HERPA.

Walk., Cat. Lep. Het., ii, p. 441 (1854).

232. *Herpa ochracea*, sp. n.

Allied to *H. venosa*, Walk., but the wings are pale ochreous in colour and the thorax and abdomen are entirely black; the inner margin of primaries and the apical and outer marginal areas of secondaries suffused with blackish.

Expanse 40 millim.

One male specimen taken at Wa-shan in July.

Hab. WESTERN CHINA.

Oberthür (Etud. d'Entom., xv, p. 21) refers to a form of *H. venosa*, Walk., which he obtained from Kouy-Tchéou. He gives it the name *sinica* and says that it is smaller and whiter than *venosa*; possibly this may be identical with the insect described above.

233. *Herpa venosa*.

Herpa venosa, Walk., Cat. Lep. Het., ii, p. 442 (1854);

Hampson, Fauna Brit. Ind., Moths, i, p. 257 (1892).

Herpa venosa var. *sinica*, Oberth., Etud. d'Entom., xv, p. 21 (1891).

Alphéraky records a large female taken at Ta-chien-lu, in June, which he says agrees with the typical form from India.

As previously stated, var. *sinica*, Oberth., from the province of Kwei-chow (Kouy-Tchéou) is described as being smaller and whiter than typical *H. venosa*.

Distribution. KHÁSIS (*Hampson*); WESTERN CHINA.

234. *Herpa luteola*, sp. n.

Head black, tegulæ yellow; thorax and abdomen bluish-black, underside of the latter ochreous. Primaries pale buff, venation and margins black. Secondaries pale yellow, venation and outer margins black except vein 1*a* and basal portions of veins 1*b*, *c*.

Vein 11 of primaries is nearer to 12 than to 10.

Expanse 30 millim.

One female specimen from Wa-shan; taken in July.

Hab. WESTERN CHINA.

Allied to *H. primulina*, Elwes.

235. *Herpa basiflava*.

Herpa basiflava, Oberth., Etud. d'Entom., xv, p. 21, pl. iii, fig. 25 (1891).

Specimens were received from Ta-chien-lu, Wa-ssu-kow, and Chi-tou, twelve in all (10 ♂ 2 ♀); they were obtained in July.

In most of my examples the venation is broadly black and the inner margin of the primaries and outer marginal area of the secondaries are suffused with the same colour.

Hab. WESTERN CHINA.

Genus HETERUSIA.

Eterusia, Hope, Trans. Linn. Soc. Lond., xviii, p. 445 (1841).

Heterusia, Hampson, Fauna Brit. Ind., Moths, i, p. 259 (1892).

236. *Heterusia tricolor*.

Eterusia tricolor, Hope, Trans. Linn. Soc. Lond., xviii, p. 445, pl. xxxi, fig. 4 (1841).

Heterusia tricolor, Hampson, Fauna Brit. Ind., Moths, i, p. 260 (1892).

One male specimen taken in June at Omei-shan. This differs from Indian examples of the same sex in the more orange colour of the basal area of the secondaries and in the neuration on this portion of the wing being less conspicuous.

Distribution. SIKHIM; SYLHET; NEPAL; NÁGAS: E. PEGU (*Hampson*); WESTERN CHINA.

237. *Heterusia magnifica*.

Eterusia magnifica, Butl., Trans. Ent. Soc. Lond., 1879, p. 5; Ill. Typ. Lep. Het., v, p. 20, pl. lxxxiii, fig. 2 (1881).

Heterusia magnifica, Hampson, Fauna Brit. Ind., Moths, i, p. 261 (1892).

Four specimens from the province of Kwei-chow, taken in June or July.

Except that the markings of the primaries are creamy white, Chinese specimens agree very well with Indian examples.

Distribution. SIKHIM; ASSAM; NÁGAS; SYLHET; CACHAR (*Hampson*); WESTERN CHINA.

238. *Heterusia xdea*.

Papilio xdea, Clerck, Icon., pl. iv, fig. 2 (1759).

Eterusia xdea, Kirby, Cat. Lep. Het., i, p. 50 (1892).

Heterusia xdea, Hampson, Fauna Brit. Ind., Moths, i, p. 262 (1892).

Common at Kiukiang; the specimens received from that locality are mostly females. The species also occurs at Chang-yang, Omei-shan, Chia-ting-fu, and in the province of Kwei-chow.

Distribution. SYLHET (*Hampson*); CENTRAL and WESTERN CHINA.

Genus MILLERIA.

Herr.-Schäff.; Hampson, Fauna Brit. Ind., Moths, i, p. 262 (1892).

239. *Milleria virginalis*.

Milleria virginalis, Herr.-Schäff., Auss. Schmett., fig. 4 (1853); Hampson, Fauna Brit. Ind., Moths, i, p. 263 (1892).

Cyclosia fuliginosa, Walk., Cat. Lep. Het., ii, p. 418 (1854).

Milleria fuliginosa, Butl., Ill. Typ. Lep. Het., v, p. 22, pl. lxxxiii, fig. 6 (1881).

One male specimen and two females from Omei-shan and one male from Chi-ting-fu, all taken in June, are referable to var. *fuliginosa*, Walk.

Distribution. SIKHIM; SYLHET; BURMA (*Hampson*); WESTERN CHINA.

Genus CHALCOSIA.

Hübner, Verz. Schmett., p. 173 (1818).

240. *Chalcosia thallo*.

Papilio thallo, Linn., Syst. Nat., i (2), p. 756 (1767).

Sphinx thallo, Don., Ins. China, pl. xli, fig. 2 (1798).

Chalcosia thallo, Kirby, Cat. Lep. Het., i, p. 45 (1892);

Hampson, Fauna Brit. Ind., Moths, i, p. 266 (1892).

Sphinx pectinicornis, Linn., Syst. Nat., i, p. 807.

Bombyx tiberina, Cram., Pap. Exot., i, p. 52, pl. xxxii, figs. C, D (1775).

Probably a Southern Chinese species.

Distribution. CHINA; NORTH INDIA; CEYLON (*Hampson*).

241. *Chalcosia guérini*.

Gynantocera pectinicornis, Guér., Deless. Souv. Inde, ii, p. 88, pl. xxiv, fig. 4 (1843).

Chalcosia guérini, Kirby, Cat. Lep. Het., i, p. 45 (1892).

Probably a Southern Chinese species.

Hab. CHINA.

242. *Chalcosia suffusa*, sp. n.

Basal half of primaries chocolate-brown, marked with white on the nervures, and limited by large black patches (one in cell and one in each interspace below); the inner margin is tinged with metallic blue; beyond the black spots there is a broad white band ex-

tending from costa to first vein and interrupted by the neuration above; outer marginal area black with a series of subapical white spots, the neuration on this portion of the wing is chocolate brown. Secondaries white with a broad black band on outer marginal area; the space between the cell and vein 1*b* more or less suffused with fuscous; venation on outer marginal area metallic blue and the anal angle is tinged with the same colour. Expanse 65—70 millim.

A long series, including both sexes, taken in June and July at Omei-shan, and one male from Chia-ting-fu, captured in July.

Hab. WESTERN CHINA.

Allied to *C. idæoides*, H.-S., but, apart from the different colour of the primaries, it is at once separated by the crimson collar being without blue spots.

242A. *Chalcosia reticularis*, sp. n.

♀ Head and antennæ with green reflection, collar crimson. Primaries creamy white, venation broadly black, especially on outer area; the basal third streaked with black between the veins, and there are two diffuse black transverse bands, the first oblique and the second undulated; outer marginal area black. Secondaries creamy white with an indented black band from costa to vein 2, this is interrupted by the venation, which is metallic green on the outer arta of the wing; fringes black preceded by a line of metallic green between vein 2 and outer angle. Under surface creamy white: primaries have a metallic green patch in the basal half of the discal cell and a black band, the latter interrupted by the venation, which is metallic green on outer portion of the wing: secondaries as above but the band is narrower. Expanse 88 millim.

One female example taken by a native collector to the north of Ta-chien-lu.

Hab. WESTERN CHINA.

The species appears to be most nearly allied to *C. idæoides*, from Northern India.

243. *Chalcosia syfanica*.

Arbudas syfanica, Oberth., Etud. d'Entom., xix, p. 33, pl. vi, fig. 43 (1894).

Oberthür described this species from two male specimens, received from Tâ-Tsien-Loû

Hab. WESTERN CHINA.

Alphéraky (Rom. sur. Lép., ix, p. 125) records two specimens, one from the province of Gan-sou, and the other from the valley of the river Fou-bian; these he says have considerable resemblance to both "*Arbudas*" *syfanica* and "*A.*" *thibetana*, but do not agree exactly with either, and suggests that all may be forms of one species.

244. *Chalcosia thibetana*.

Arbudas thibetana, Oberth., Etud. d'Entom., xix, p. 32, pl. vi, fig. 44 (1894).

Hab. WESTERN CHINA.

245. *Chalcosia alpherakyi*, sp. n.

♂ Differs from *C. thibetana*, Oberth., as figured, in its larger size, and the metallic green colour of primaries; the neuration is not marked with white, the white transverse band is broader and not connected with the costa to form a Y-shaped mark. In shape it more resembles *C. syfanica*, from which species, however, it can readily be separated by the absence of white basal band and yellow markings on thorax and abdomen.

♀ Agrees with the male except that the band of primaries is broader and the marginal band of secondaries is absent.

Expanse 32-38 millim.

Six male specimens and three females were taken at How-kow, on the Thibetan frontier, at an elevation of 10,000 feet; June and July.

Hab. WESTERN CHINA.

Genus CYCLOSIA.

Hübner; Hampson, Fauna Brit. Ind., Moths, i, p. 269 (1892).

246. *Cyclosia papilionaris*.

Noctua papilionaris, Drury, Ill. Exot. Ent., ii, p. 4, pl. ii, fig. 4 (1773).

Milleria papilionaris, Kirby, Cat. Lep. Het., i, p. 43 (1892).

Cyclosia papilionaris, Hampson, Fauna Brit. Ind., Moths, i, p. 269 (1892).

Probably occurs in Southern China only.

Distribution. CHINA; SIKHIM; KHÁSIS; BURMA; MERGUI; JAVA (*Hampson*).

Genus ERASMIA.

Hope, Trans. Linn. Soc. Lond., xviii, p. 446 (1841).

247. *Erasmia pulchella*.

Erasmia pulchella, Hope, Trans. Linn. Soc., xviii, p. 446, pl. xxxi, fig. 5 (1841).

A fine series from Chia-ting-fu, and one example from the province of Kwei-chow, all taken in June and July.

The Chinese specimens differ from the Indian type in having smaller blue spots on the primaries, and a broader outer marginal border to the secondaries.

Distribution. SIKHIM; ASSAM; NÁGAS; SYLHET (*Hampson*); WESTERN CHINA.

248. *Erasmia sangaica*.

Erasmia sangaica, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 86 (1877).

Moore describes this species from Shanghai.

Hab. NORTH-EASTERN CHINA.

Genus CAMPYLOTES.

Westw., Royle's Botany of Himalayas, Lep., p. liii. (1839).

249. *Campylotes histrionicus*.

Campylotes histrionicus, Westw., Royle's Botany of Himalayas, Lep., p. liii, pl. x, fig. 1 (1839); Hampson, Fauna Brit. Ind., Moths, i, p. 274 (1892).

I have a series from the province of Kwei-chow; the specimens were taken in June and July.

Distribution. Throughout the HIMALAYAS; KHÁSIS (*Hampson*); WESTERN CHINA.

250. *Campylotes romanovi*, sp. n.

Blue-black with markings as in *C. histrionicus* from the North-west Himalayas; the spots on apical area, with the exception of three near costa, are not subhyaline whitish as in *C. histrionicus*; the

tegulae are crimson instead of yellow, and there are no yellow markings on the abdomen or on the legs.

Expanse 70—85 millim.

A very fine series, including both sexes, from Moupin, and one specimen from Wa-shan; June.

Hab. WESTERN CHINA.

251. *Campylotes desgodinsi*.

Epyrgis desgodinsi, Oberth., Etud. d'Entom., ix, p. 18, pl. ii, fig. 10 (1884).

Campylotes desgodinsi, var. *splendida*, Elwes, Proc. Zool. Soc. Lond., 1890, p. 384, pl. xxxiii, fig. 3.

Occurs at Moupin and most of the localities in Western China that my collectors visited; June and July.

Many of the specimens have a distinct basal band on the primaries.

Distribution. NĀGAS (*Hampson*); WESTERN CHINA.

252. *Campylotes pratti*.

Campylotes pratti, Leech, Entom., xxiii, p. 109 (1890).

I have only received this species from Chang-yang, with the exception of one example from Pu-tsu-fong, in which the basal band of the primaries is absent, the spots on the apical area are whitish, and all the discal markings are reddish ochreous in colour.

Hab. CENTRAL and WESTERN CHINA.

253. *Campylotes minima*.

Campylotes minima, Oberth., Etud. d'Entom., xix, p. 25, pl. vi, fig. 54 (1894).

One example of each sex from Omei-shan, and a male from Ta-chien-lu, taken in June and July.

Hab. WESTERN CHINA.

Genus HISTIA.

Hübner, Verz. Schmett., p. 198 (1818).

254. *Histia flabellicornis*.

Zygæna flabellicornis, Fabr., Sp. Ins., ii, p. 163 (1781).

Histia flabellicornis, Hübn., Verz. Schmett., p. 198 (1816).

Papilio rhodope, Cram., Pap. Exot., i, pl. xxx, fig. F. (1775).

Histia rhodope, Kirby, Cat. Lep. Het., p. 55 (1892).

One male specimen from Fung-tu, taken in September, two females from Ichang, and one from Chia-ting-fu, captured in July, and one example of the same sex from Kiukiang obtained in August.

There was a specimen in Pryer's collection from Loochoo.

The blue colour in the secondaries of the females is suffused with blackish, and only shows in certain lights.

Distribution. HONG-KONG; SIKHIM; ASSAM; KHÁSIS; NÁGAS; BURMA (*Hampson*); CENTRAL and WESTERN CHINA; LOOCHOO.

Genus AGALOPE.

Walk., Cat. Lep. Het., ii, p. 437 (1854).

255. *Agalope davidi*.

Chalcosia davidi, Oberth., Etud. d'Entom., ix, p. 19, pl. i, fig. 2 (1884).

Agalope davidi, Kirby, Cat. Lep. Het., i, p. 57 (1892).

This appears to be a common species at Chang-yang, and Moupin in June; it also occurs at Omei-shan, Ni-tou, Chow-pin-sa, and Chia-Kou-ho.

Hab. CENTRAL and WESTERN CHINA.

256. *Agalope immaculata*, sp. n.

All the wings semi-transparent. Primaries creamy-white, neuration fuscous; there is a small yellow patch at the base, and the inner area is tinged with yellow. Secondaries whiter than primaries; the venation is distinct but not tinged with fuscous. Under surface as above. Expanse 56 millim.

One male specimen from Ta-chien-lu, taken in July.

Hab. WESTERN CHINA.

Allied to *A. davidi*, Oberth., but separable from that species by the absence of markings and by the longer pectinations of the antennæ.

257. *Agalope livida*.

Agalope livida, Moore, Proc. Zool. Soc. Lond., 1879, p. 391.

Probably a Southern Chinese species.

Hab. CHINA.

Genus CHELURA.

Hope, Trans. Linn. Soc. Lond., xviii, p. 444 (1840).

258. *Chelura eronioides*.

Chelura eronioides, Moore, Lep. Atk., p. 15 (1857).

Achelura eronioides, Kirby, Cat. Lep. Het., i, p. 56 (1892).

One example of each sex from Moupin, and four females from Omei-shan, all captured in June.

Distribution. SIKHIM (*Hampson*); WESTERN CHINA.

259. *Chelura bieti*.

Chalcosia bieti, Oberth., Etud. d'Entom., xi, p. 29, pl. vi, fig. 40 (1886).

Agalope bieti, Kirby, Cat. Lep. Het., i, p. 57 (1892).

Oberthür describes this species from Ta-chien-lu. It seems to be very closely allied to *C. eronioides*. My collectors did not meet with it.

Hab. WESTERN CHINA.

260. *Chelura dejeani*.

Agalope dejeani, Oberth., Etud. d'Entom., xviii, p. 20, pl. ii, fig. 24 (1893).

Four male specimens from the high plateau to the north of Ta-chien-lu.

Hab. WESTERN CHINA.

Genus ELCYSMA.

Butl., Trans. Ent. Soc. Lond., 1881, p. 4.

261. *Elcysma westwoodii*.

Agalope westwoodii, Voll., Tijdschr. Ent., vi, p. 136, pl. ix, fig. 3 (1863).

Elcysma translucida, Butl., Trans. Ent. Soc. Lond., 1881, p. 4.

Elcysma westwoodii, Elwes, Proc. Zool. Soc. Lond., 1890, p. 386, pl. xxxiv, fig. 5.

There were three specimens in Pryer's collection, one of which is from Gifu; my native collector obtained a female example at Gensan in August.

Dr. Staudinger (Rom. sur Lép., vi, p. 248) considers *E. caudata*, Brem., from Amurland to be a local form of this species.

Distribution. AMURLAND (*Staudinger*); JAPAN; CHINA; COREA.

Subfamily PHAUDINÆ.

Genus PHAUDA.

Walk., Cat. Lep. Het., i, p. 256 (1854).

262. *Phauda triadum*.

Euchromia triadum, Walk., Cat. Lep. Het., i, p. 257 (1854).

Xenares fortunii, Herr.-Schäff., Auss. Schmett., i, p. 223, (1854).

Phauda fortunii, Butl., Ill. Typ. Lep. Het., i, p. 20, pl. ix, fig. 3 (1877).

Two specimens from Kiukiang taken in June.

Hab. NORTHERN and CENTRAL CHINA.

263. *Phauda pratti*.

Phauda pratti, Leech, Entom., xxiii, p. 81 (1890).

The type was from Ichang; I have since received a specimen from Moupin, taken in June, and one from Wa-shan, captured in July.

Hab. CENTRAL and WESTERN CHINA.

Genus PRYERIA.

Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 85 (1877).

264. *Pryeria sinica*.

Pryeria sinica, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 86 (1877).

A long series from Yokohama in Pryer's collection.

Distribution. NORTHERN CHINA; JAPAN.

Family PSYCHIDÆ.

Subfamily ŒCETICINÆ.

Genus CLANIA.

Walk.; Hampson, Fauna Brit. Ind., Moths, i, p. 291 (1892).

265. *Clania variegata*.

Oiketieus variegatus, Snell., Tijdschr. Ent., xxii, p. 114, pl. ix, fig. 6 (1879).

Eumeta pryeri, Moore; Leech, Proc. Zool. Soc. Lond., 1888, p. 598.

Clania variegata, Hampson, Fauna Brit. Ind., Moths, i, p. 291 (1892).

Two specimens from Yokohama in Pryer's collection and I have one from Nikko.

Distribution. SHANGHAI; CANARA; NILGIRIS; CEYLON; BORNEO; CELEBES (*Hampson*); JAPAN.

266. *Clania japonica*.

Eumeta japonica, Heyl., C. R. Soc. Ent. Belg., xxviii, p. xl (1884).

Male type, with pupa and pupa-case, described from specimen received from Tokio by M. Heylaerts.

It appears to be very closely allied to *C. variegata*.

☐ *Hab.* JAPAN.

267. *Clania minuscula*.

Eumeta minuscula, Butl., Trans. Ent. Soc., 1881, p. 22.

There were specimens from Yokohama in Pryer's collection; I bred a specimen at Nagasaki, and I have eleven examples from Ichang, taken in August.

Distribution. JAPAN; KIUSHIU; CENTRAL CHINA.

Subfamily *PSYCHINÆ*.

Genus *ACANTHOPSYCHE*.

Heyl., Ann. Soc. Ent. Belg., 1881, p. 66.

268. *Acanthopsyche bipars*.

Perina bipars, Walk., Cat. Lep. Het., xxxii, p. 406 (1865).

Acanthopsyche (*Æceticoides*) *bipars*, Hampson, Fauna Brit.

Ind., Moths, i, p. 293 (1892).

Kophene bipars, Kirby, Cat. Lep. Het., i, p. 506 (1892).

One specimen in Pryer's collection; exact locality not indicated.

Distribution. BOMBAY (*Hampson*); JAPAN.

Genus *PLATEUMETA*.

Butl., Trans. Ent. Soc. Lond., 1881, p. 22.

269. *Plateumeta aurea*.

Plateumeta aurea, Butl., Trans. Ent. Soc. Lond., 1881, p. 22.

Two examples from Yokohama in Pryer's collection.

Hab. JAPAN.

Genus *PSYCHE*.

Schrank, Fauna Boica, ii (2), p. 87 (1802).

270. *Psyche viciella*.

Tinea viciella, Schiff., Syst. Verz. Lep. Wien., pp. 133, 288, pl. i, fig. 7. (1776).

Psyche viciella, Kirby, Cat. Lep. Het., i, p. 515 (1892).

One specimen of var. *stetinsensis*, Her., in Pryer's collection without locality.

Distribution. EUROPE.—JAPAN.

271. *Psyche unicolor*.

Bombyx unicolor, Hufn., Berl. Mag., ii, p. 418 (1766).

Canephora unicolor, Kirby, Cat. Lep. Het., i, p. 509 (1892).

Psyche unicolor, var. *asiatica*, Staud., Stett. Ent. Zeit., 1887, p. 94.

There were several specimens in Pryer's collection from Yokohama and Yesso; these are referable to var. *asiatica*, Staud.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; FOCHAU.

Family COSSIDÆ.

Genus COSSUS.

Fabr.; Hampson, Fauna Brit. Ind., Moths, i, p. 305 (1892).

272. *Cossus ligniperda*.

Bombyx cossus, Linn., Syst. Nat., i, p. 504 (1858); Hübn., Eur. Schmett., Bomb., fig. 198.

Cossus ligniperda, Fabr., Ent. Syst., iii, p. 3 (1794).

Trypanus cossus, Kirby, Cat. Lep. Het., i, p. 860 (1892).

Cossus cossus, Fixsen, Rom. sur Léop., iii, p. 337 (1887).

Fixsen records this species from Corea. Staudinger (Rom. sur Léop., vi, p. 291) refers to a specimen which he received from Hertz, who took it in the north of Pekin, as *Cossus cossus*; from his description of this example, however, it would seem to be *C. vicarius*.

Distribution. EUROPE.—AMURLAND; COREA; ? NORTH CHINA.

273. *Cossus vicarius*.

Cossus vicarius, Walk., Cat. Lep. Het., xxxii, p. 584 (1865).

Trypanus vicarius, Kirby, Cat. Lep. Het., i, p. 861 (1892).

There were two specimens in Pryer's collection but without data. I took a male at Gensan and I have received one taken by a native collector at Nikko. My collectors in China appear to have met with the species at Ta-chien-lu only where one female example was obtained.

Distribution. JAPAN; COREA; NORTH and WESTERN CHINA.

274. *Cossus acronyctoides*.

Brachylia acronyctoides, Moore, Proc. Zool. Soc. Lond., 1879, p. 411, pl. xxxiv, fig. 4.

Cossus acronyctoides, Hampson, Fauna Brit. Ind., Moths, i, p. 305 (1892).

One male specimen taken at Wa-shan in May.

Distribution. KASHMIR; GANJAM; BOMBAY; MHOW; NILGIRIS (*Hampson*); WESTERN CHINA.

Genus AZYGOPHLEPS.

Hampson, Fauna Brit. Ind., Moths, i, p. 309 (1892).

275. *Azygophleps albofasciata*.

Zeuzera albofasciata, Moore, Lep., Atk., i, p. 87 (1879).

Azygophleps albofasciata, Hampson, Fauna Brit. Ind., Moths, i, p. 309 (1892).

A female specimen taken in July at Chia-kou-ho.

Distribution. KASHMIR; SIKHIM (*Hampson*); WESTERN CHINA.

Genus ZEUZERA.

Latr., Nouv. Dict. d'Hist. Nat., xxiv, p. 186 (1804); Steph., Ill. Brit. Ent. Haust., ii, p. 8 (1828).

276. *Zeuzera pyrina*.

Noctua pyrina, Linn. Faun. Suec., p. 306 (1761).

Noctua æsculi, Linn., Syst. Nat., i, p. 833 (1767).

Bombyx æsculi, Hübn., Bomb., fig. 202 (1804 ?).

Zeuzera pyrina, Kirby, Cat. Lep. Het., i, p. 871 (1892).

One example in Pryer's collection and one from Gensan taken in July.

Distribution. EUROPE.—JAPAN; COREA.

277. *Zeuzera leuconotum*.

Zeuzera leuconotum, Butl., Trans. Ent. Soc. Lond., 1881, p. 22.

I have one example of each sex from Moupin, and one small male specimen from Ta-chien-lu, all taken in July. There was one male in Pryer's collection from Yokohama.

Z. multistrigata, Moore, is very closely allied to *Z. leucotum* if it is not specifically identical with it.

Distribution. JAPAN; WESTERN CHINA.

Genus PHRAGMATÆCIA.

Newm., Zoologist, vii, p. 2931 (1850).

278. *Phragmatæcia castaneæ*.

Bombyx castaneæ, Hübn.; Esp., Schmett., p. 94, pl. xciv, figs. 1, 2 (1807).

Bombyx arundinis, Hübn., Bomb., pl. xlvii, figs. 200, 201 (1803).

Zenzera innotata, Walk., Cat. Lep. Het., xxxii, p. 587 (1865).

Phragmatæcia castaneæ, Hampson, Fauna Brit. Ind., Moths, i, p. 313 (1892); Kirby, Cat. Lep. Het., p. 876 (1892).

Phragmatæcia castaneæ, Hb., var. *pygmæa*, Graes, Staud., Rom. sur Lép., vi, p. 293 (1892).

Occurs in July and August at Yokohama and Hakodate.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; NORTH-EASTERN CHINA; NILGIRIS; AFRICA.—CEYLON.—MADAGASCAR.

Family HEPIALIDÆ.

Genus PHASSUS.

Walk.; Hampson, Fauna Brit. Ind., Moths, i, p. 318 (1892).

279. *Phassus signifer*.

Phassus signifer, Walk., Cat. Lep. Het., vii, p. 1568 (1856); Butl., Ill. Typ. Lep. Het., v, pl. cix, fig. 2 (1886); Hampson, Fauna Brit. Ind., Moths, i, p. 320 (1892).

Phassus sinensis, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 94 (1877).

Phassus herzi, Fixsen, Rom. sur Lép., iii, p. 335, pl. xv, fig. 3 (1887).

I have examples of this variable species from Yoko-

hama, Oiwake, Satsuma, Shimoneseki, Gensan, Ichang, and Moupin.

The silvery mark at the outer end of the cell may be bar-like, geminate, or punctiform, but it is not entirely absent in any of my specimens; other silvery marks are found at the base of the cell (always present) and towards the apex of the primaries.

Distribution. SYLHET; BERNARDMYO; BURMA; E. PEGU; BORNEO (*Hampson*); JAPAN; COREA; CENTRAL, WESTERN and NORTH-EASTERN CHINA.

280. *Phassus marginenotatus*, sp. n.

Primaries brownish, sparsely striated with darker, the costal and central areas are variegated with golden brown; there is a diffuse, oblique, dark brown, sub-basal band, a patch of the same colour beyond the cell, and some dark brown quadrate spots on the apical half of the costa; fringes of the ground colour, preceded by silvery white dots. Secondaries and undersurface of all the wings fuliginous. Expanse 70 millim.

One male specimen from Omei-shan, taken in June or July.

Hab. WESTERN CHINA.

281. *Phassus davidi*.

Hepialus davidi, Pouj., Bull. Soc. Ent. Fr., (6) vi, p. xcii (1886).

Described from specimens received from Moupin. I have four examples from Chia-kou-ho, taken in July and August.

Hab. WESTERN CHINA.

282. *Phassus excresecens*.

Hepialus excresecens, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 482 (1877); Ill. Typ. Lep. Het., ii, p. 20, pl. xxvii, fig. 7 (1878).

Phassus excresecens, Kirby, Cat. Lep. Het., i, p. 889 (1892).

Hepialus æmulus, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 482 (1877); Ill. Typ. Lep. Het., ii, p. 20, pl. xxvii, fig. 8 (1878).

Phassus excresecens, Leech, Proc. Zool. Soc. Lond., 1888, p. 645.

A variable species. I have specimens from Yokohama Hakodate and Kiushiu.

Distribution. JAPAN, YESSO and KIUSHIU; AMURLAND.

Genus *HEPIALUS*.

Fabr., Syst. Ent., p. 589 (1775).

283. *Hepialus velleda*.

Bombyx velleda, Hübn., Bomb., figs. 212, 233, 234 (1814).

Hepialus fusconebulosus, Kirby, Cat. Lep. Het, i, p. 880 (1892).

One example which appears to be referable to the greyish form of this species was received from Ichang where it was captured in June.

Distribution. EUROPE.—AMURLAND; CENTRAL CHINA.

284. *Hepialus hectus*.

Noctua hectus, Linn., Syst. Nat., i, App., p. 822 (1858).

Bombyx hectus, Hübn., Bomb., figs. 208, 209, 258 (1804 ?).

Hepialus hectus, Kirby, Cat. Lep. Het., i, p. 883 (1892).

There were two specimens from Yesso in Pryer's collection.

Distribution. EUROPE.—AMURLAND; YESSO.

285. *Hepialus nebulosus*.

Hepialus nebulosus, Alph., Rom. sur Lép., v, p. 85 (1889).

One specimen from Chia-kou-ho and one from Wa-shan appear to be referable to this species which Alphéraky describes from North-East Thibet. Possibly it may be a form of *H. velleda*.

Distribution. NORTH-EAST THIBET; WESTERN CHINA.

Genus *GORGOPIS*.

Hüb., Verz. Schmett., p. 198 (1822 ?).

286. *Gorgopis nipponica*.

Gorgopis nipponica, Butl., Ann. and Mag. Nat. Hist., (5) iv, p. 357 (1879).

Two specimens from the foot of Ohoyama, near Yokohama, in Pryer's collection; I obtained one example at Tsuruga in July.

Hab. JAPAN.

Family CALLIDULIDÆ.

Genus PTERODECTA.

Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 399 (1877).

287. *Pterodecta felderi*.

Callidula felderi, Brem., Lep. Ost-Sib., p. 38, pl. iv, fig. 3 (1864).

Pterodecta gloriosa, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 399 (1877); Ill. Typ. Lep. Het., ii, p. 8, pl. xxiii, fig. 4 (1878).

Specimens from Yokohama, Yamato, and Fujisan in Pryer's collection. I obtained the species at Nagahama and Tsuruga and my collectors at Chang-yang and at most of the localities in Western China that they visited.

Distribution. AMURLAND; CENTRAL and WESTERN CHINA; JAPAN.

Genus HERIMBA.

Moore, Lep. Atk., p. 20 (1879).

288. *Herimba nigropuncta*, sp. n.

Head, palpi, and thorax black, marked with yellow; abdomen, black, with yellow dorsal line and bands.

Primaries white, basal area yellow; costal area and inner margin spotted with black; basal, sub-basal, submarginal, and marginal bands indicated by black spots, which are often confluent especially on outer margin; there is a large black spot at end of cell and one beyond middle of inner margin; a wavy and sometimes interrupted yellow line separates the marginal from the submarginal series of spots, and there are spurs of the same colour along the venation. Secondaries white, with one or two black spots at the base, a sub-basal band represented by a large black spot towards costa, and a similar one with two smaller on inner margin; marginal and sub-marginal bands indicated by black spots, but the latter is irregular, and the spots absent between veins 4 and 7; marginal line yellow, terminating in a diffuse yellow patch at anal angle. Fringes black, marked with yellow at anal angle of secondaries.

Expanse, ♂ 32—34 millim., ♀ 36 millim.

Specimens were received from Chang-yang, Chia-ting-fu, and Chia-kou-ho; they were taken in June and July.

Hab. CENTRAL and WESTERN CHINA.

The markings are subject to considerable modification. In some examples the costal spots are confluent, forming a broad black border.

289. *Herimba flavilinea*, sp. n.

Similar to *H. nigropuncta*, but the yellow markings are more prominent, the sub-basal black band of secondaries is more complete and separated from the marginal band by a yellow line as on primaries; the spots forming the marginal band are sometimes surrounded by yellow. Expanse ♂ 26—34 millim., ♀ 36 millim.

Four male specimens from Wa-ssu-kow and one female from Ni-tou. Occurs in June and July.

Hab. WESTERN CHINA.

290. *Herimba trachiaria*.

Abraxas trachiaria, Oberth., Etud. d'Entom., xviii, p. 35, pl. ii, fig. 21 (1893).

Described from a female specimen taken in May somewhere between Ta-chien-lu and Moupin.

I have one example from Moupin and one from Omei-shan, both captured in July.

Hab. WESTERN CHINA.

Family DREPANULIDÆ.

Genus EUCHERA.

Hübner, Hampson, Fauna Brit. Ind., Moths, i, p. 327 (1892).

291. *Euchera capitata*.

Abraxas capitata, Walk., Cat. Lep. Het., xxiv, p. 1121 (1862).

Cyelidia capitata, Kirby, Cat. Lep. Het., p. 725 (1892).

There were specimens of this very variable species from Ohoyama and Fujisan in Pryer's collection. I took the species at Gensan in July and have received examples

from Mr. Manley of Yokohama. My collectors in China obtained specimens at Ship-y-shan, Chang-yang, Wa-shan, and Chia-kou-ho. Walker's type was from Hong-kong.

Distribution. CHINA; COREA; JAPAN.

292. *Euchera fractifasciata*, sp. n.

White. Primaries with a fuscous basal patch and sub-basal band, the latter interrupted by the nervures; a central fascia, interrupted below the middle, the costal portion broad, enclosing a white spot, and the inner marginal portion represented by two almost round spots; outer margin broadly bordered with fuscous, traversed by an ill defined wavy line of the ground colour, which unites with a large patch between veins 3 and 4, in the interspaces above this patch there are whitish rings enclosing fuscous spots, but these are not well defined; there are narrow, wavy, fuscous bands between the sub-basal and central and between the central band and marginal border. Secondaries have an interrupted fuscous submarginal band, not extending to outer angle, and a series of spots of the same colour before the interrupted fuscous marginal line; there is a fuscous cloud towards anal angle between the submarginal band and the marginal spots.

Expanse, ♂ 80 millim., ♀ 90 millim.

An example of each sex taken at Wa-shan in June.

Hab. WESTERN CHINA.

293. *Euchera ociferaria*.

Cyclidia ociferaria, Walk., Cat. Lep. Het., xx, p. 56 (1860).

Walker described this species from North China; my collectors did not meet with it.

Genus MACROCILIX.

Butl., Ill. Typ. Lep. Het., vi, p. 18 (1886).

294. *Macrocilix maia*.

Argyris maia, Leech, Proc. Zool. Soc. Lond., 1888, p. 647, pl. xxxii, fig. 6.

Described from a specimen that I captured at Gensan in the month of July. I have since received another example taken in the island of Kiushiu by a native collector.

Distribution. COREA; KIUSHIU.

295. *Macrocilix orbiferata*.

Abraxas orbiferata, Walk., Cat. Lep. Het., xxiv, p. 1126 (1862).

Macrocilix orbiferata, Hampson, Fauna Brit. Ind., Moths, i, p. 330 (1892).

Six specimens from Omei-shan, two from Moupin and one from Chia-ting-fu ; all taken in June and July.

Distribution. SIKHIM ; BHUTÀN ; KHÁSIS ; BORNEO (*Hampson*) ; WESTERN CHINA.

Genus MACRAUZATA.

Butl., Ill. Typ. Lep. Het., vii, p. 43 (1889).

296. *Macrauzata fenestraria*.

Comibæna fenestraria, Moore, Proc. Zool. Soc. Lond., 1867, p. 639.

Macrauzata fenestraria, Hampson, Fauna Brit. Ind., Moths, i, p. 330 (1892).

One example from Tokio in Pryer's collection.

Distribution. KANGRA ; SIKHIM (*Hampson*) ; JAPAN.

Genus CALLICILIX.

Butl., Cist. Ent., iii, p. 124 (1885).

297. *Callicilix abraxata*.

Callicilix abraxata, Butl., Cist. Ent., iii, p. 124 (1885).

Platypteryx nguldoe, Oberth., Etud. d'Entom., xviii, p. 22, pl. ii, fig. 29 (1893).

There was a specimen from Yesso in Pryer's collection ; my native collector obtained a male at Hakodate in July and I have received examples of both sexes from Changyang, Omei-shan, and Kwei-chow, also taken in July.

Oberthür's specimen was taken between Ta-chien-lu and Moupin.

The Chinese specimens are rather larger than those from Yesso and the markings are somewhat broader and heavier.

Distribution. YESSO ; CENTRAL and WESTERN CHINA.

Genus AUZATA

Walk., Cat. Lep. Het., xxvi, p. 1620 (1862).

298. *Auzata chinensis*, sp. n.

Somewhat similar to *A. superba*, but all the wings have a double antemedial pale fuscous line, and an interrupted submarginal band of the same colour; the secondaries have a patch as on primaries; fringes of all the wings pale fuscous interrupted with white at the ends of the nervules. Expanse, ♂ 38 millim., ♀ 48 millim.

I have a series of eight specimens. They were taken at Ta-chien-lu, Omei-shan, Chia-ting-fu, and in the province of Kwei-chow during the months of June and July.

Hab. WESTERN CHINA.

299. *Auzata superba*.

Argyris superba, Butl., Ill. Typ. Lep. Het., ii, p. 52, pl. xxxvii, fig. 2 (1878).

Occurs in July and August at Yokohama, Oiwake and Hakodate.

Hab. JAPAN and YESSO.

300. *Auzata minuta*, sp. n.

White. Primaries have a fuscous dot at end of the cell and a fuscous grey line beyond; the latter is angulated below costa, and thence curved to inner margin, in the hollow of this curve there is a fuscous patch tinged with ochreous and intersected by the white veins, which are here dotted with black; submarginal band fuscous grey, interrupted towards costa. Secondaries have a double central line and a submarginal band, both fuscous grey, and there are two dark dots beyond the central line and towards abdominal margin. Fringes fuscous grey, marked with white at the ends of the nervules. Expanse, ♂ 25 millim., ♀ 28—30 millim.

Occurs at Chang-yang, Ichang, Omei-shan, Chia-ting-fu, and in the province of Kwei-chow.

Hab. CENTRAL and WESTERN CHINA.

Genus TELDENIA.

Moore, Lep. Ceyl., ii, p. 119 (1882).

301. *Teldenia sericea*, sp. n.

Silky white. Primaries traversed by four wavy, dusky, lines, the outer two submarginal and close together; secondaries have three similar lines. Expanse 30—33 millim.

Two male specimens from Moupin, taken in July.

Hab. WESTERN CHINA.

The species superficially resembles a pale marked example of *Dilinia pusaria*, Linn.

302. *Teldenia inconspicua*, sp. n.

Silky-white, powdered with fuscous scales, which assume the form of very wavy transverse lines, these are most clearly defined on the outer marginal area of all the wings. Under surface white, the costa of primaries tinged with fuscous. Expanse 33 millim.

One male specimen from Ta-chien-lu, and a female from Omei-shan, both taken in July.

Hab. WESTERN CHINA.

Genus LEUCODREPANA.

Hampson, Fauna Brit. Ind., Moths, i, p. 333 (1892).

303. *Leucodrepana idæoides*.

Leucodrepana idæoides, Hampson, Fauna Brit. Ind., Moths, i, 333 (1892).

One male specimen from Wa-shan, captured in July.

Distribution. SIKHIM; WESTERN CHINA.

304. *Leucodrepana sacra*.

Corycia sacra, Butl., Ann. and Mag. Nat. Hist., (5) i, p. 404 (1878); Ill. Typ. Lep. Het., iii, p. 44, pl. li, fig. 11 (1879).

Bapta sacra, Leech, Ann. and Mag. Nat. Hist., (6) xix, p. 198 (1897).

This species belongs to the Drepanulidæ and not to the Geometridæ, in which family I previously placed it.

Distribution. JAPAN; YESSO; COREA; CENTRAL and WESTERN CHINA.

305. *Leucodrepana virgo*.

Corycia virgo, Butl., Ann. and Mag. Nat. Hist., (5) i, p. 404 (1878); Il. Typ. Lep. Het., iii, p. 44, pl. li, fig. 10 (1879).

Described from Yokohama.

Hab. JAPAN.

306. *Leucodrepana*? *lineata*, sp. n.

Silvery white. Primaries have four dusky, transverse lines, almost parallel and nearly straight. Secondaries have four parallel, curved, dusky lines. Fringes yellowish. Under surface silvery white, basal area of primaries suffused with fuscous. Expanse 38 millim.

One male specimen from Omei-shan; July.

Hab. WESTERN CHINA.

307. *Leucodrepana nivea*.

Leucodrepana nivea, Hampson, Fauna Brit. Ind., Moths, i, p. 333 (1892).

One male specimen taken in June at Wa-shan.

Distribution. SIKHIM (*Hampson*); WESTERN CHINA.

308. *Leucodrepana thibetaria*.

Micronia thibetaria, Pouj., Ann. Soc. Ent. Fr., 1895, p. 311, pl. 6, fig. 10.

This species was described by Poujade from Moupin. I have a fine series from Ichang and Chang-yang; the specimens which are chiefly from the latter locality were taken in June and July.

Hab. CENTRAL and WESTERN CHINA.

309. *Leucodrepana quinquelineata*, sp. n.

White. Primaries have four wavy, ochreous, transverse lines, the third and fourth rather more wavy than the other two, submarginal line represented by ochreous dots on the neuration. Secondaries have three ochreous, wavy, transverse lines, the second and third appearing to be continuations of the third and fourth of primaries; submarginal line as on primaries. Under surface white; primaries fuscous on costal area. Expanse 30 millim.

One male specimen in Pryer's collection.

Hab. JAPAN.

Genus DREPANA.

Schr.; Hampson, Fauna Brit. Ind., Moths, i, p. 333 (1892).

310. *Drepana crocea*.

Drepana crocea, Leech, Proc. Zool. Soc. Lond., 1888, p. 649, pl. xxxii, fig. 7.

Albara crocea, Kirby, Cat. Lep. Het., p. 734 (1892).

The type (a female, not a male as described) of this species was in Pryer's Japanese collection. I have since received an example of each sex from Moupin, taken in June. The female example agrees with the type in all respects, but the male is smaller (36 millim.) and has the 8-mark on the secondaries less distinct.

Distribution. JAPAN; WESTERN CHINA.

311. *Drepana rubromarginata*, sp. n.

Primaries, yellow, outer margin bordered with reddish-brown from vein 6 to inner margin,—antemedial line, blackish, undulated; postmedial line, blackish, wavy, interrupted towards costa; submarginal line blackish, wavy but indistinct towards costa and inner margin, a black spot on inner margin represents the termination of each of these lines; there are two blackish spots in the discal cell, an 8-shaped mark at end of cell, and a more or less round one below it, the upper part of 8-mark centred with whitish; the reddish marginal border is traversed by a wavy line of the ground colour. Secondaries paler with traces of transverse markings, mostly confined to abdominal area; there is a blackish spot between veins 2 and 3, and another between veins 3 and 4, the former centred with white. Expanse 33 millim.

One male specimen from Pu-tsu-fong, taken in June or July.

Hab. WESTERN CHINA.

Allied to *D. crocea*.

312. *Drepana griscaria*, sp. n.

Primaries whitish hyaline tinged with pale fuscous grey; basal patch, antemedial, medial, and postmedial bands darker, outer edge of the latter strongly defined and elbowed below costa; submarginal line diffuse running in a slight curve from apex to outer

angle ; there is an elongate black spot on upper discocellular and two almost round ones on lower discocellular. Secondaries whitish with five fuscous grey transverse lines and bands, all indistinct towards costa ; there is a black dot at upper angle of cell and one at lower angle. Expanse 40 millim.

One male specimen from Pu-tsu-fong, taken in June or July.

Hab. WESTERN CHINA.

313. *Drepana hyalina*.

Drepana hyalina, Moore, Proc. Zool. Soc. Lond., 1888, p. 401 ; Butl., Ill. Typ. Lep. Het., vii, pl. cxxv, fig. 1 (1889).

One specimen from Huang-mu-chang, which agrees with examples of this species that I have from Kokser.

Distribution. DHARMSÁLA ; KULU (*Hampson*) ; WESTERN CHINA.

314. *Drepana acuminata*.

Drepana acuminata, Leech, Entom., xxiii., p. 113 (1890).
Platypteryx acuminata, Kirby, Cat. Lep. Het., p. 731 (1892).

Described from a male specimen received from Ichang.

Distribution. CENTRAL CHINA.

Drepana manleyi, sp. n.

Primaries pale ochreous brown traversed by two transverse lines ; the first line curved, slightly indented below costa, and rather indistinct ; the second line dark brown, acutely angled below costa, where it is joined by a short oblique line from the apex ; there is a black spot in the cell and the apex is purplish-brown : submarginal line brown running from angle of second line to inner margin, just before outer angle. Secondaries pale straw colour, dusted with pale ochreous brown, traversed by four brownish lines, the second most distinct and appearing to be a continuation of the second line of primaries. Under surface pale straw colour, brownish at apex as above, postmedial and submarginal lines of primaries brownish. Expanse 30—33 millim.

Two male specimens received from Mr. Manley, who captured them at Yokohama.

Hab. JAPAN.

Allied to. *D. acuminata*.

316. *Drepana japonica*.

Drepana japonica, Moore, Ann. and Mag. Nat. Hist., (4) xx, p. 94 (1877).

Platypteryx japonica, Kirby, Cat. Lep. Het., p. 732 (1892).

I took this species at Nagasaki in June, and there were several specimens from Yokohama and Gifu in Pryer's collection.

Hab. JAPAN and KIUSHIU.

317. *Drepana vira*.

Drepana vira, Moore, Proc. Zool. Soc. Lond., 1865, p. 817; Hampson, Fauna Brit. Ind., Moths, i, p. 342 (1892).

One specimen from Moupin, taken in June.

Distribution. SIKHIM; WESTERN CHINA.

318. *Drepana scabiosa*.

Drepana scabiosa, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 478 (1877); Ill. Typ. Lep. Het., ii, pl. xxv, fig. 9 (1878).

Platypteryx scabiosa, Kirby, Cat. Lep. Het., p. 732 (1892).

I have specimens from Yokohama, Oiwake, Shimonoseki, and Gensan; also one example taken in June at Changyang, and one taken in August in the same locality.

Distribution. AMURLAND; JAPAN; COREA; CENTRAL CHINA.

319. *Drepana curvatula*.

Bombyx curvatula, Borkh., Eur. Schmett., iii, p. 460 (1790).

Bombyx harpagula, Hübn., Bomb., pl. xi, figs. 42, 43 (1800).

Platypteryx curvatula, Kirby, Cat. Lep. Het., p. 732 (1892).

Drepana acuta, Butl., Trans. Ent. Soc., 1881, p. 596.

Platypteryx acuta, Kirby, l. c., p. 733.

There were specimens from Yokohama and Oiwake in Pryer's collection. I obtained the species at Gensan in June, and have one example from Hakodate, where it was taken by a native collector in the same month. The specimen last referred to, also one from Oiwake, are pale in colour and almost exactly resemble a form of *D. falcataria*, Linn., except that the outer line of the primaries is continued on the secondaries.

Distribution. EUROPE.—AMURLAND; JAPAN; YESSO; COREA.

320. *Drepana flavilinea*.

Drepana flavilinea, Leech, Entom., xxiii, p. 113 (1890).

Platypteryx flavilinea, Kirby, Cat. Lep. Het., p. 731 (1892).

Three specimens from Chang-yang, all taken in July.

Hab. CENTRAL CHINA.

321. *Drepana parvula*.

Drepana parvula, Leech, Entom., xxiii, p. 112 (1890).

Platypteryx parvula, Kirby, Cat. Lep. Het., p. 731 (1892).

Drepana muscula, Staud., Rom. sur Lép., vi, p. 335, pl. xii, fig. 7 (1892).

Four specimens taken by myself at Ningpo in April, and two received from Chang-yang, where they were captured in July.

Staudinger has redescribed this species from Amurland.

Distribution. NORTHERN and CENTRAL CHINA ; AMURLAND.

322. *Drepana fenestra*, sp. n.

Primaries, greyish-brown, tinged with violet ; with two interrupted, wavy, blackish lines before the middle, and an oblique double line from apex to inner margin ; there is a small hyaline spot in the middle of the cell and a cluster of eight spots at the end of the cell ; a wavy, blackish submarginal line is indicated. Secondaries have the basal area of the same colour as primaries, but the outer area is ferruginous ; there is a double medial line which appears to be a continuation of the oblique one of primaries ; submarginal line, wavy, blackish but not distinct. Expanse 26—30 millim.

Three specimens (2 ♂ and 1 ♀) from Wa-shan, taken in May.

Hab. WESTERN CHINA.

323. *Drepana pallcolus*.

Drepanulides? pallcolus, Motsch., Bull. Soc. Imp. Nat. Mosc., xxxix, p. 193 (1866).

Callidrepana pallcolus, Kirby, Cat. Lep. Het., p. 730 (1892).

Occurs at Oiwake, Fujisan, Ohoyama, and Hakodate.

Hab. JAPAN and YESSO.

324. *Drepana argenteola*.

Drepana argenteola, Moore, Lep. E.I.C., p. 369 (1859);
Hampson, Fauna Brit. Ind., Moths, i, p. 338 (1892).

Drepana patrana, Moore, Proc. Zool. Soc. Lond., 1865,
p. 816.

Callidrepana patrana, Kirby, Cat. Lep. Het., p. 730 (1892).

There were specimens from Nikko, Oiwake, and Fujisan in Pryer's collection, and Mr. Manley sent me an example from Yokohama. I have several specimens from Chang-yang, one from Ichang, and one from Moupin. The species is on the wing in July and August.

Distribution. SIKHIM; BURMA; CEYLON; JAVA (*Hampson*); JAPAN; CENTRAL and WESTERN CHINA.

325. *Drepana* (?) *bidens*.

Drepana bidens, Leech, Entom., xxiii, p. 113 (1890).

Platypteryx bidens, Kirby, Cat. Lep. Het., p. 731 (1892).

Described from a specimen taken at Chang-yang in July.

Hab. CENTRAL CHINA.

Genus *HYP SOMADIUS*.

Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 478 (1877).

326. *Hypsomadius insignis*.

Hypsomadius insignis, Butl., Ann. and Mag. Nat. Hist.,
(4) xx, p. 479 (1877); Ill. Typ. Lep. Het., ii, p. 15,
pl. xxv, fig. 3 (1878).

Type from Yokohama.

Hab. JAPAN.

Genus *SPICA*.

Swinhoe, Proc. Zool. Soc. Lond., 1889, p. 424.

327. *Spica parallelangula*.

Spica parallelangula, Alph., Rom. sur Lép., ix, p. 2, pl. ii,
fig. 3 (1897).

The species differs from *S. luteola*, Swinhoe, in the paler ground colour of the primaries and in the second transverse line of these wings being angulated.

It is variable in the colour of the primaries, which ranges from pale whitish ochreous to pale reddish ochreous on the one hand and to luteous-grey on the other.

Alphéraky describes this species from the province of Amdo, Central Asia. It appears to have occurred in June and July in most of the localities in Western China that my collectors visited.

Distribution. WESTERN CHINA ; CENTRAL ASIA.

Genus DEROCA.

Walk., Cat. Lep. Het., iv, p. 822 (1855).

328. *Deroce inconclusa*.

Deroce inconclusa, Walk., Cat. Lep. Het., vii, p. 1727 (1856); Hampson, Fauna Brit. Ind., Moths, i, p. 344 (1892).

Deroce phasma, Butl., Ann. and Mag. Nat. Hist., (5) i, p. 442 (1871); Ill. Typ. Lep. Het., iii, p. 49, pl. liii, fig. 4 (1879).

Four specimens of each sex from Oiwake in Pryer's collection. One female example taken in June or July in the province of Kwei-chow.

In male specimens of *phasma*, Butl., the markings are much more pronounced than in typical male *inconclusa*.

Distribution. NORTH-WEST HIMALAYAS ; NÁGAS ; MANIPUR (*Hampson*) ; JAPAN ; WESTERN CHINA.

329. *Deroce hyalina*.

Deroce hyalina, Walk., Cat. Lep. Het., iv, p. 823 ; Hampson, Fauna Brit. Ind., Moths, i, p. 344 (1892).

I have specimens from Chang-yang and Omei-shan, taken in June and July, which agree very well with examples from Kulu in my collection.

Distribution. NORTH-WEST HIMALAYAS ; SIKHIM ; NÁGAS ; MANIPUR ; EAST PEGU (*Hampson*) ; CENTRAL and WESTERN CHINA.

Genus PHALACRA.

Walk., Cat. Lep. Het., xxxv, p. 1638 (1866).

330. *Phalacra vidhisara*.

Hemerophila vidhisara, Walk., Cat. Lep. Het., xxi, p. 319 (1860).

Phalacra vidhisara, Moore, Lep. Ceyl., iii, p. 541, pl. cci, figs. 1, 1a (1887); Hampson, Fauna Brit. Ind., Moths, i, p. 345 (1892).

Two female specimens from Omei-shan; July.

Distribution. BOMBAY; CALCUTTA; NILGIRIS; CEYLON (*Hampson*); WESTERN CHINA.

Genus CILIX.

Leach, Edinb. Encycl., ix, p. 134 (1815).

331. *Cilix glaucata*.

Phalæna glaucata, Scop., Ent. Carn., p. 221 (1764).

Drepana glaucata, Kirby, Cat. Lep. Het., i, p. 736 (1892).

Cilix glaucata, Hampson, Fauna Brit. Ind., Moths, i, p. 347 (1892).

I have one example taken at Chang-yang in June and Alphéraky (Rom. sur Lép., vi, p. 17) records one from Heï-hò.

Distribution. EUROPE. — NORTH AMERICA. — SIMLA; DALHOUSIE (*Hampson*); AMURLAND; CENTRAL and WESTERN CHINA.

Genus ORETA.

Walk., Cat. Lep. Het., v, p. 1166 (1855).

332. *Oreta pulchripes*.

Oreta pulchripes, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 477 (1877); Ill. Typ. Lep. Het., ii, p. 15, pl. xxv, fig. 7 (1878).

Oreta calceolaria, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 478 (1877); Ill. Typ. Lep. Het., ii, p. 15, pl. xxv, fig. 4 (1878).

A very fine and variable series from Yokohama and Oiwake in Pryer's collection. I obtained examples at Hakodate in August. *Calceolaria* is a yellow form of *O. pulchripes*, and is much commoner than the type.

I received one example of the typical form from Chia-ting-fu.

Distribution. AMURLAND; JAPAN; YESSO; WESTERN CHINA; LOOCHOO.

333. *Oreta auripes*.

Oreta auripes, Butl., Ann. and Mag. Nat. Hist., (5) iv, p. 355 (1879).

Described from Yokohama specimens.

I obtained two examples at Fushiki in July and have received one from Chang-yang, where it was taken in June.

Distribution. JAPAN; CENTRAL CHINA.

335. *Oreta calida*.

Oreta calida, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 477 (1877); Ill. Typ. Lep. Het., ii, p. 14, pl. xxv, fig. 6 (1878).

Occurs at Yokohama, Oiwake, and Hakodate.

Hab. JAPAN and YESSO.

335. *Oreta turpis*.

Oreta turpis, Butl., Ann. and Mag. Nat. Hist., (4) xx, p. 477 (1877); Ill. Typ. Lep. Het., ii, pl. xxv, fig. 8 (1878).

This was described from Yokohama. I have not seen any example of it other than the type.

Hab. JAPAN.

Genus CAMPTOCHILUS.

Hampson, Fauna Brit. Ind., Moths, i, p. 351 (1892).

336. *Camptochilus reticulatum*.

Auzea reticulata, Moore, Lep. Atk., p. 233, pl. viii, fig. 3 (1887).

Camptochilus reticulatum, Hampson, Fauna Brit. Ind., Moths, i, p. 351 (1892).

Four specimens from Ichang and one from Chang-yang, all taken in July.

Distribution. SIKHIM: CENTRAL CHINA.

337. *Camptochilus sinuosa*.

Camptochilus sinuosa, Warren, Novit. Zool., iii, p. 342 (1896).

One example of each sex obtained in July and one male in August at Chang-yang.

Warren described this species from a female specimen taken in North Manipur.

Distribution. CENTRAL CHINA; NORTH MANIPUR.

Family THYRIDIDÆ.

Genus STRIGLINA.

Guen.; Hampson, Fauna Brit. Ind., Moths, i, p. 353 (1892).

338. *Striglina scitaria*.

Drepanoides ? scitaria, Walk., Cat. Lep. Het., xxvi, p. 1488 (1862).

Striglina scitaria, Hampson, Fauna Brit. Ind., Moths, i, p. 354 (1892).

Timandra (?) cancellata, Christoph, Bull. Mosc., lv, (2), p. 55 (1881).

Sonagara scitaria, Staud., Rom. sur. Lép., vi, p. 636 (1892).

A series from Yokohama in Pryer's collection; I took specimens in Satsuma in May and at Gensan in July; the

latter agree with the Sikkim form *strigipennis*, Moore. The species has also been received from Ichang, where it was taken in June and again in August.

Distribution. FORMOSA; throughout INDIA, CEYLON and BURMA; ANDAMANS; BORNEO; NEW GUINEA; SOLOMON ISLANDS; AUSTRALIA; FIJI (*Hampson*); JAPAN; COREA; CENTRAL CHINA.

339. *Striglina vialis*.

Songara vialis, Moore, Proc. Zool. Soc. Lond., 1883, p. 27, pl. vi, fig. 9.

Striglina scitaria, Hampson, Fauna Brit. Ind., Moths, i, p. 354 (1892).

One specimen taken in July at Kiukiang; this is identical with Moore's type.

This species seems to me to be quite distinct from *S. scitaria*, although it must be admitted that the latter is very variable.

Distribution. HIMALAYAS; CENTRAL CHINA.

340. *Striglina jixseni*.

Striglina jixseni, Alph., Rom. sur Lép., ix, p. 167, pl. xi, fig. 10 ♀ (1897).

Alphéraky's types, a male and a female, were from Corea. I took a male specimen at Gensan in July.

Hab. COREA.

341. *Striglina suffusa*, sp. n.

Stramineous tinged with pink. Primaries have three pinkish transverse lines beyond the middle, the first is angulated below costa and between it and the base of the wing there are some ill-defined transverse marks. Secondaries have six or seven transverse lines but only two of these are distinct; the abdominal margin is pink. Under surface as above, but the lines on primaries are less distinct. Expanse 35 millim.

One male specimen from Chang-yang, where it was obtained in June.

Hab. CENTRAL CHINA.

Genus SERICOPHORA.

Christoph, Bull. Mosc., lv, (2), p. 64 (1881).

342. *Sericophora guttata*.

Sericophora guttata. Christ., Bull. Mosc., lv, (2), p. 65 (1881); Staud., Rom. sur Lép., vi, p. 636, pl. xiv, fig. 14 (1892).

Siculodes ? lucidulina, Pouj., Bull. Soc. Ent. Fr., 1894, p. clxxxvi.

Three specimens taken by myself at Gensan in July; I have received examples from Chang-yang, Ichang, Moupin, Ta-chien-lu and Wa-ssu-kow, all captured in June or July.

The Gensan specimens agree with Staudinger's figure, but all the others are rather smaller in size and darker in colour, and are referable to var. *lucidulina*, Poujade.

Distribution. AMURLAND; COREA; CENTRAL and WESTERN CHINA.

343. *Sericophora (?) brunnea*, sp. n.

Brownish suffused and marked with darker. Primaries dotted with white on the costa, barely visible from above, and traversed by several dark brown lines; antemedial, medial, and submarginal bands dark brown, the latter rather broad, but all ill-defined. Secondaries, ochreous-brown on outer margin, with eight transverse, wavy, dark brown lines; the third and fourth and the sixth and seventh most clearly defined, and the space enclosed by each pair is brown. Under surface yellowish-orange, traversed by brown lines and bands; the apex of primaries is of the ground colour; there is a silvery white mark at the end of the cell, and there are some white dots on the costa. Expanse 25 millim.

One male from Ichang taken in June.

Hab. CENTRAL CHINA.

Genus PYRINIOIDES.

Butl., Trans. Ent. Soc. Lond., 1881, p. 199.

344. *Pyrinioides aurea*.

Pyrinioides aurea, Butl., Trans. Ent. Soc. Lond., 1881, p. 200.

One male specimen and two females were obtained by my native collector at Hakodate in June or July, and I have received a male example from Chang-yang, taken in June, and a female from Omei-shan,*taken in July.

In both Chinese specimens the transverse line of the primaries is preceded by a blotch of its own colour on the costa, and the ground colour of the Chang-yang example is pale yellowish.

Distribution. YESSO; JAPAN; CENTRAL and WESTERN CHINA.

Genus RHODONEURA.

Guen.; Hampson, Fauna Brit. Ind., Moths, i, p. 355 (1892).

345. *Rhodoneura marginepunctalis*.

Microscia marginepunctalis, Leech, Entom., xxii, p. 5, pl. iv, fig. 10 (1889).

Rhodoneura nitens (part), Hampson, Fauna Brit. Ind., Moths, i, p. 359 (1892).

Pharambara quadrovata, Warr., Novit. Zool., iii, p. 342.

Described from four specimens taken in Satsuma in May.

Hab. JAPAN and KIUSHIU.

346. *Rhodoneura nitens*.

Microscia nitens, Butl., Ann. and Mag. Nat. Hist., (5) xx, p. 116 (1887).

Pharambara hamifera, Moore, Lep. Atk., p. 213 (1887).

Rhodoneura nitens, Hampson, Fauna, Brit. Ind., Moths, i, p. 359 (1892).

One specimen taken by a native collector at Ningpo in July.

Distribution. NILGIRIS; CEYLON; JAPAN; SOLOMON ISLANDS (*Hampson*); NORTHERN CHINA.

347. *Rhodoneura exusta*.

Microsea exusta, Butl., Ill. Typ. Lep. Het., iii, p. 71, pl. lviii, fig. 8 (1879).

Microsea ardens, Butl., l. c. fig. 9.

Microsea exusta, var. *erecta*, Leech, Entom., xxii, p. 66, pl. iv, fig. 3 (1889).

Rhodoneura exusta, Hampson, Fauna Brit. Ind., Moths, i, p. 359 (1892).

I took the type-form of this species at Nagasaki in May, at Shimonoseki, Fusan, and Gensan in June, and at Fushiki, Nagahama, and Hakodate in July; I have also received specimens from Nikko and Ichang, taken in June, and there were a number of examples from Yokohama in Pryer's collection. The *ardens* form was only met with at Hakodate, and *erecta* at Gensan, both in July.

Distribution. SIKHIM (*Hampson*); JAPAN; YESSO; COREA; CENTRAL CHINA.

348. *Rhodoneura pallida*.

Microsea pallida, Butl., Ill. Typ. Lep. Het., iii, p. 71, pl. lviii, fig. 7 (1879).

Rhodoneura pallida, Hampson, Fauna Brit. Ind., Moths, i, p. 359 (1892).

I obtained this species in Satsuma in May, at Fusan in June, and at Ningpo in July. There were specimens in Pryer's collection, and others have been received from Ichang and Chang-yang, where they were captured in July.

Distribution. SIKHIM; ASSAM (*Hampson*); JAPAN; COREA; NORTHERN and CENTRAL CHINA.

349. *Rhodoneura parallelina*, sp. n.

♂ Pale cinnamon brown striated with dark brown. Primaries have two almost parallel blackish lines traversing the central area, the first is slightly angulated below costa, and the second is joined by a short oblique black line from costa; there is a fine, irregular black line running from the costa, shortly before apex, to middle of outer margin. Secondaries have a black, curved, antemedial line, and a fine line similar to that on outer area of primaries. Fringes dark brown.

♀ Dark cinnamon brown ; markings as in the male. Fringes ochreous brown marked with blackish, and preceded by a blackish line.

Expanse, ♂ 29 millim., ♀ 32 millim.

One male specimen from Chang-yang, and a female from Ichang, both taken in June.

Hab. CENTRAL CHINA.

Genus HYPOLAMPRUS.

Hampson, Fauna Brit. Ind., Moths, i, p. 364 (1892).

350. *Hypolamprus subroscalis*.

Microsea subroscalis, Leech, Entom., 1889, p. 5.

Two specimens from Ningpo taken by a native collector in June.

Hab. NORTH-EAST CHINA.

Genus THYRIS.

Ochs. ; Walk., Cat. Lep. Het., viii, p. 72 (1856).

351. *Thyris fenestrella*.

Phalæna fenestrella, Scop., Ent. Carn., p. 217 (1763).

Sphinx pyralidiformis, Hübn., Sphing., pl. iii, fig. 16.

Thyris fenestrina, Walk., Cat. Lep. Het., viii, p. 73 (1856).

I obtained specimens at Gensan in June and July, and have received examples from Chang-yang, Wa-ssu-Kow and Ta-chien-lu taken in July. Staudinger records the species from Amurland and North China.

Distribution. EUROPE.—AMURLAND ; COREA ; NORTH, CENTRAL and WESTERN CHINA.

352. *Thyris usitata*.

Thyris usitata, Butl., Ann. and Mag. Nat. Hist., (5) iv, p. 367 (1879).

There were specimens from Yokohama, Oiwake, and Gifu in Pryer's collection ; I took the species in Satsuma in May.

T. usitata differs from *T. fenestrella* in having only one

hyaline spot on the primaries, and in the yellow coloration of the other spots; the ground colour is also invariably black. These characters hold good in a series of thirty-two specimens of *T. usitata* as compared with a series of thirty *T. fenestrella* from various localities.

Hab. JAPAN and KIUSHIU.

Genus HYPERTHYRIS.

Leech, Trans. Ent. Soc. Lond., 1889, p. 121.

353. *Hyperthyris aperta*.

Hyperthyris aperta, Leech, Trans. Ent. Soc. Lond., 1889, p. 122, pl. vii, fig. 7; Hampson, Fauna Brit. Ind., Moths, i, p. 370 (1892).

One male specimen from Kiukiang.

Distribution. SIKHIM (*Hampson*); CENTRAL CHINA;

SEPTEMBER 30, 1898.